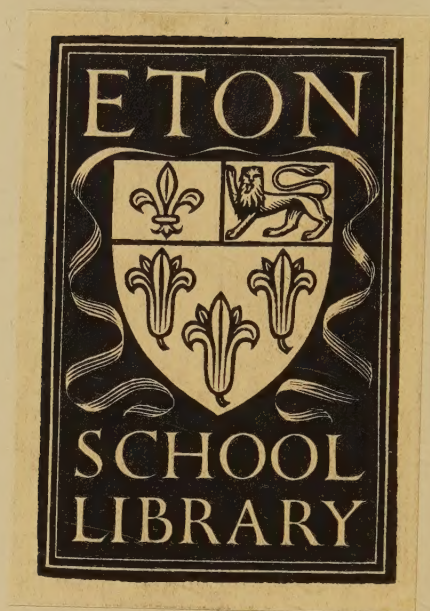




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ΑΓΑΘΗ ΤΥΧΗ

Ἔτους χιλιοστοῦ ἑνακοσιοστοῦ τεσσαρακοστοῦ ἕκτου, βασιλεύοντος Γεωργίου τοῦ Γεωργίου, ἔδοξε τῷ Διοικητικῷ συμβουλίῳ τῆς ἐν Ἀθήναις Βρεττανικῆς ἑσχολῆς ἐν κυρίαί ἑδραι· Ἐπειδὴ ἡ Ἀθήνησι Γαλλικὴ ἑσχολή, εὖνους καὶ φίλη διὰ παντὸς ὑπάρχουσα, ἀπαγγέλλει ὅτι μέλλει τὴν ἑκατοστὴν αὐτῆς γενέθλιον πανηγυρικῶς ἑορτάζειν καὶ ἡμᾶς παρακαλεῖ τῆς εὐφροσύνης κοινωνεῖν, ὅπως ἂν οὖν καὶ ἡ Βρεττανικὴ ἑσχολὴ φαίνεται ἀποδεχομένη καὶ τιμῶσα ἀξίως τῶν εὐεργεσιῶν τοὺς μετ' ἀκραίφνουσ σπουδῆς διερευνῶντας τοὺς πολυτίμους τῆς ἀρχαίας Ἑλλάδος θησαυροὺς πρὸς τὴν πάντων ἀνθρώπων ἀπόλανσιν καὶ ὠφέλειαν· τύχη τῇ ἀγαθῇ· Δεδόχθαι τοῖς συμβούλοις ἐπαινέσαι τὴν Γαλλικὴν ἑσχολὴν τῆς ἀπροφασίστου καὶ ἀποτελεσματικωτάτης ἐνεργείας ἕνεκα, συνηδόμενοις αὐτῇ ἐπὶ τοῖς ἐν τῇ παρεληλυθυῖαι ἑκατονταετηρίδι καλῶς καὶ πολυωφελῶς πεπραγμένοις, καὶ εὐχομένοις ὑπὲρ τῆς καὶ εἰς τὸ λοιπὸν ἐπιτυχίας καὶ προκοπῆς τῆς ἑσχολῆς, ὥστε, ἀποκατασταθείσης τῆς κοινῆς εἰρήνης καὶ εὐημερίας, ἔτι καὶ προθυμότερον ἑαυτὴν ἐπιιδόναί εἰς τὴν ἀπανταχοῦ ἐπικράτησιν τῆς ἐλευθερίας καὶ τοῦ κάλλους καὶ τῆς ἀληθείας.

LETTER OF CONGRATULATION TO THE ÉCOLE FRANÇAISE D'ATHÈNES ON THE
OCCASION OF ITS CENTENARY

THE ANNUAL
OF THE
BRITISH SCHOOL AT ATHENS

No. XLII

1947

17392

THE BRITISH SCHOOL AT ATHENS
50 BEDFORD SQUARE, LONDON, W.C.1

Published by the Managing Committee

PRICE: TWO GUINEAS NET

THE BRITISH SCHOOL AT ATHENS

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J. M. COOK, Esq., M.A.

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WAR SERVICE OF STUDENTS OF THE SCHOOL

1939-1945

As after the 1914-1919 War (see *BSA* xxiii. pp. viii ff.) the Managing Committee of the School has wished to place on record the war service, in the Armed Forces or in other branches of the national effort, of former Students of the School. The list below has been drawn up with the co-operation of former Students, all of whom have been circulated in this connexion. In some cases, however, owing to changes of address the officers of the School have lost touch with former Students. In many other cases, though no formal war work is recorded, former Students who were reserved in their peace-time occupations undertook heavy additions to their normal work under the strain of war conditions, thus releasing younger men for other service.

	<i>First Admitted.</i>	
J. G. MILNE, D.Litt.	1890-1891	Red Cross and St. John's War Organisation, Prisoner of War Educational Books Service, Oxford: head of Indexing Dept., 1941-1945.
Sir JOHN L. MYRES, O.B.E., D.Litt., D.Sc., F.B.A., F.S.A.	1892-1893	Work in Oxford for the Director of Naval Intelligence.
R. J. G. MAYOR, C.B., M.A.	1892-1893	Fire-fighting party, Kensington Borough.
J. G. C. ANDERSON, M.A.	1896-1897	Air-Raid Warden.
J. W. CROWFOOT, C.B.E., M.A.	1896-1897	Lectured to Army units, 1939-40; worked on Admiralty Handbooks, 1940; A.R.P. (Deputy Head Warden); att. Home Guard as interpreter in German.
A. E. HENDERSON, F.S.A., F.R.I.B.A.	1897-1898	Air-Raid Warden.
J. PENOYRE, C.B.E., M.A.	1900-1901	A.R.P. Keeper of County Medical Stores (Oxon.); Air-Raid Warden 1938-1941.
Miss H. L. LORIMER, M.A.	1901-1902	Air-Raid Warden (Senior Sector Warden).
Prof. E. S. FORSTER, M.B.E., M.A., F.S.A.	1902-1903	Chairman, Sheffield Joint Recruiting Board, 1939-1946.
Prof. A. J. B. WACE, M.A., Litt.D., LL.D., F.S.A.	1902-1903	(Director 1914-1923). Passport Control Office, Athens, 1939-1941; G.H.Q., M.E., 1941-1943 (Egypt, Palestine, Cyrenaica). Mentioned in Despatches.
Lady DANIEL (Miss M. K. WELSH)	1903-1904	Red Cross Prisoners of War Service; fire-watch-ing.
C. C. T. DOLL, M.A., F.R.I.B.A.	1904-1905	Survey of war damage, Borough of Holborn.
Miss G. M. A. RICHTER, Litt.D.	1904-1905	Work in American Red Cross and on Committees for aid to Greece (National Citizens Committee of the Greek War Relief Ass. Inc., American Friends of Greece).

WAR SERVICE OF STUDENTS

Prof. J. P. DROOP, M.A.	1905-1906	Temporary Administrative Assistant, Admiralty Secretariat, 1939-1945 (head of Honours and Awards Branch).
Mrs. CULLEY (Miss E. B. ABRAHAMS)	1905-1906	Examiner, Postal Censorship, 1939-1940.
W. J. FARRELL, C.M.G., O.B.E., M.C., M.A.	1906-1907	Director of Education, Government of Palestine, and Member of Advisory Council in Palestine; Palestine Volunteer Force; C.M.G., 1946.
Prof. A. M. WOODWARD, M.A.	1906-1907	(Director 1923-1929). Air-Raid Warden, 1940-1944.
C. H. C. PIRIE-GORDON, D.S.C., M.A.	1907-1908	Temporary Civil Officer, Admiralty, 1939-1947 (Naval Intelligence Division); Captain and Adjutant, Admiralty Company, Home Guard, from 1941.
M. S. THOMPSON, O.B.E., M.A.	1907-1908	Major, 8th Bn. Surrey Home Guard; Ministry of Food (Coffee Division).
N. WHATLEY, M.A.	1907-1908	Deputy Head Warden, Civil Defence Service, Oxford.
Prof. A. W. GOMME, M.A.	1908-1909	Principal, H.M. Treasury.
Prof. H. A. ORMEROD, M.C., M.A.	1909-1910	Lieut., 1st Bn. Berks. Home Guard (1940-1944).
Lady NICHOLSON, M.B.E. (Miss D. LAMB)	1910-1911	Author, <i>The Londoner</i> (Britain in Pictures Series) and other propaganda and welfare work.
Prof. A. J. TOYNBEE, D.Litt. M.A., F.B.A.	1911-1912	Director, Research Department, Foreign Office.
Mrs. HASLUCK, M. A. (Miss M. M. HARDIE)	1911-1912	Intelligence, H.M. Legation, Athens, 1939-1941; G.H.Q., M.E., 1941-1944 (status of Staff Major).
Miss E. RADFORD, M.B.E.	1913-1914	W.V.S. (driving for hospitals, interpreting and receiving refugees from France, June 1940); educational and musical work in Cornwall. M.B.E., 1947.
Canon W. A. WIGRAM, D.D.	1913-1914	Air-Raid Warden and Lecturer, A.R.P., Somerset.
Rev. H. COLLINGHAM, M.A.	1919-1920	Air-Raid Warden, 1939-1945.
Prof. A. W. LAWRENCE, M.A., B.Litt., F.S.A.	1919-1920	Capt., General List, 1940 (special duties, Middle East); Scientific Officer with Coastal Command, R.A.F., 1942; Temporary Assistant, Ministry of Economic Warfare, 1943.
F. L. LUCAS, O.B.E., M.A.	1920-1921	Foreign Office, 1939-1945, O.B.E.
Prof. B. ASHMOLE, M.C., D.F.C., M.A., B.Litt., F.B.A.	1920-1921	Wing-Commander, R.A.F.V.R. (Shetland Islands, Greece, Iraq, Western Desert, 1941; Sumatra, 1942; Air H.Q., India; H.Q., Fighter Command). Twice mentioned in despatches; Greek D.F.C.
Prof. H. T. WADE-GERY, M.C., M.A., F.B.A.	1920-1921	Air-Raid Warden.
Miss W. LAMB, D.Litt., M.A.	1920-1921	B.B.C., Turkish and Persian Intelligence, 1942-1946.
W. A. HEURTLEY, O.B.E., Litt.D.	1921-1922	Work for Geographical Section of Admiralty, Cambridge.

- R. W. HUTCHINSON, M.A., 1921-1922 G.H.Q., M.E.: M.I.12 (Postal Censorship), 1941-1942; Middle East Intelligence Centre, 1942-1943; Political Intelligence Centre, 1943; Psychological Warfare Branch, 1943-1945.
- J. BELL, M.A. 1922-1923 A.R.P., Senior Warden, Eton, 1940-1942.
- C. T. SELTMAN, M.A. 1922-1923 Organiser of Exhibition of Greek Art in Royal Academy, 1942, on behalf of Greek Red Cross; and similar exhibitions for the same cause in Edinburgh, Glasgow, Cambridge and Norwich, 1943-1944.
- O. J. TODD, Ph.D. 1922-1923 A.R.P. Warden, University of British Columbia, Vancouver.
- W. L. CUTTLE, M.A. 1923-1924 Work for Geographical Section of Admiralty; classes in modern Greek at Cambridge for Services; Civil Defence.
- J. H. ILIFFE, M.A. 1924-1925 Assistant Controller, Food Control H.Q., Jerusalem, 1943-1944; Acting Assistant British Resident, Amman, 1944-1946; Palestine Volunteer Force, 1941-1943.
- Mrs. LAWRENCE, B.A. (Miss B. I. THOMPSON) 1924-1925 Red Cross and canteen work.
- Mrs. WADE-GERY, B.A. (Miss V. WHITFIELD) 1924-1925 Admiralty.
- Miss N. M. HOLLEY, B.A. 1925-1926 Temp. Senior Commander, A.T.S. (Army Education: S.O.Edn./A.T.S., Eastern Command and War Office, 1942-1945); Air-Raid Warden, 1939-1940.
- P. J. DIXON, C.M.G., M.A. 1927-1928 Counsellor, Foreign Service. Accompanied Foreign Secretary (Rt. Hon. A. Eden) on mission to Middle East and Balkans, Feb.-Apr. 1941. Assistant to Resident Minister at A.F.H.Q., Algiers, 1943. Private Secretary to Foreign Secretary, 1943; attended conferences at Moscow, Quebec, Yalta and Potsdam. C.M.G., 1945.
- C. A. R. RADFORD, M.A., 1927-1928 Supervisor, European Service, B.B.C., 1939-1940; Intelligence Assistant, Air Ministry, 1940-1941; Political Warfare Executive, 1941-1943; Psychological Warfare Branch, A.F.H.Q., 1943-1945 (Assistant Deputy Director).
- Miss S. BENTON, M.A., 1927-1928 Work for Hydrographer of the Navy (Royal B.Litt. Geographical Society), 1940; Postal and Telegraph Censorship, 1940-1945.
- W. G. HARDY, M.A. 1928-1929 Major, University of Alberta Contingent, Canadian Officers' Training Corps (officer i/c training).
- Prof. W. A. LAIDLAW, 1928-1929 Lecturing to H.M. Forces on behalf of Regional Litt.D., M.A. Committee, University of St. Andrews, and University of Liverpool; A.R.P. Casualty Service.
- Miss C. BARRATT, M.A. 1928-1929 Air Raid Warden, 1939-1945; Anti-gas instructor, 1939-1940; part-time ambulance driver, 1940-1944.

W. K. C. GUTHRIE, M.A.	1928-1929	T/Major, Intelligence Corps, U.K. and Middle East.
G. D. G. HAKE, M.A., R.W.A., F.R.I.B.A.	1929-1930	Member of Ministry of Works panel for war-damaged buildings of architectural interest; survey of Bristol war damage and of Bristol buildings for National Buildings Record; Sector Captain, N.F.S.
N. G. L. HAMMOND, D.S.O., M.A.	1929-1930	Lieut.-Col., Intelligence Corps. Greece, 1941; Syria, 1941; Greece, 1943-1944. D.S.O.; twice mentioned in despatches.
C. M. ROBERTSON, M.A.	1929-1930	Pte., Royal Corps of Signals and Intelligence Corps, M.E.F. and C.M.F., 1942-1946. Assistant Principal in War Office, 1940-1942.
R. D. BARNETT, M.A.	1930-1931	F/Lt., R.A.F.V.R. Turkish Liaison Officer, D.A.F.L. (Air Ministry), 1941-1943; Intelligence Officer, 336 Fighter Sqn., Royal Hellenic Air Force, 1943; Turkish interpreter, British Radar Control, Ankara, 1944; Turkish, Iraqi and Iranian Liaison Officer, H.Q. R.A.F., M.E., 1945.
J. K. BROCK, M.A.	1930-1931	Civil Assistant, War Office.
Prof. R. J. H. JENKINS, M.A.	1930-1931	Service in a department of the Foreign Office, 1939-1945.
T. BURTON BROWN, M.A.	1930-1931	Major, R.A. (England, India, Burma). Antiquities Officer, Dodecanese, 1946.
G. T. GRIFFITH, M.A.	1931-1932	F/Lt., R.A.F.V.R., U.K. and N.-W. Europe.
A. H. S. MEGAW, M.A.	1931-1932	Public Information Officer and Intelligence Officer, Government of Cyprus.
Prof. R. E. WYCHERLEY, M.A.	1931-1932	Pte., 46th and 103rd Bns., County of Lancaster Home Guard, 1940-1944; Manchester University Fire Brigade, 1939-1943.
E. A. LANE, M.A.	1932-1933	S/Ldr., R.A.F.V.R. Air Intelligence, Air Ministry.
G. M. YOUNG, C.I.E., M.A.	1932-1933	(Director, 1936-1946). Director of Publicity, H.M. Legation, Athens, 1939-41; Joint Secretary, War Department, Government of India, 1941-1944. Served in Archaeological Survey of India at Taxila as honorary officer, 1944-1945.
R. M. COOK, M.A.	1932-1933	Ministry of Works, 1941-1945.
R. H. BULMER, M.A.	1932-1933	F/Lt., R.A.F.V.R. Allied Central Interpretation Unit, U.K. and N.-W. Europe, 1941-1945.
W. J. SMITH, M.C., F.S.A., F.R.I.B.A.	1932-1933	Capt., Army and Home Guard (Staff Captain (Q), Glasgow Area H.Q.).
E. J. A. KENNY, M.A.	1932-1933	S/Ldr., R.A.F. Air Ministry (Directorate of Operations (Special Operations)) and C.I.U. (Norway, Belgium, Germany). Mentioned in despatches, 1942.
A. ANDREWES, M.B.E., M.A.	1933-1934	Major, Intelligence Corps. U.K. (1940-1943), Middle East, Greece (1943-1945). M.B.E., 1945.
Miss E. ECCLES, B.A.	1933-1934	Section Officer, W.A.A.F. (Central Interpretation Unit). Service in Crete with U.N.R.R.A. Greece Mission, 1944-1945.

The Hon. MERCY MONEY-COUTTS, M.A.	1933-1934	Service in a department of the Foreign Office, 1939-1944; British Red Cross, 1944-1945; U.N.R.R.A., 1945-1946. Relief work in Crete, 1945-1946. Bronze Medal of Greek Red Cross.
E. J. P. RAVEN, M.A.	1933-1934	F/Lt., R.A.F.V.R. Photographic interpreter at R.A.F. Medmenham, 1941-1943, and in Mediterranean, 1943-1945.
Mrs. BURN, M.A. (Miss M. WYNN THOMAS)	1933-1934	R.A.F. Cyphers, Athens, 1941; G.S.I. (A), G.H.Q., M.E., 1941-1942; R.A.F., M.E. (Suez Road), 1942-1943; British Embassy to Greece (Cairo and Athens), 1943-1946. Third Secretary to Embassy.
Prof. A. D. TRENDALL, Litt.D., M.A.	1933-1934	Intelligence, L.H.Q., Melbourne, 1942-4.
J. M. COOK, M.A.	1934-1935	(Director). Major, R. Scots; U.K., 1941-1943; Greece, 1943-1946. Monuments, Fine Arts and Antiquities Officer, Greece, 1944-1946.
D. P. COSTELLO, M.A.	1934-1935	T/Major, N.Z.E.F. Greece, 1941; Libya (Long Range Desert Group), 1941; Egypt, Tunisia, Italy, 1942-1944 (Staff Officer, Intelligence, New Zealand Division); visited Poland to contact British ex-prisoners of war liberated by the Russian advance, 1945.
R. J. HOPPER, Ph.D., M.A.	1934-1935	C.S.M., Intelligence Corps. U.K., British Guiana, Italy, Austria (1941-1945).
J. M. F. MAY, M.A.	1934-1935	Capt., Intelligence Corps. Greece, 1940-1941; G.H.Q., M.E., 1941-1944.
D. W. BISSET.	1935-1936	Sapper, R.E. (H.Q., Western Command Camouflage Centre).
G. H. DEELEY, M.B.E.	1935-1936	S/Ldr., R.A.F. (Allied Central Interpretation Unit), 1940-1945. M.B.E., three times mentioned in despatches, Legionnaire, American Legion of Merit.
T. J. DUNBABIN, D.S.O., M.A.	1935-1936	T/Lieut.-Col., Intelligence Corps. Intelligence, War Office, 1940-1941; Middle East and Greece, 1941-1945. Monuments, Fine Arts and Antiquities Officer, Greece, 1945. D.S.O., 1942.
E. W. GRAY, M.A.	1935-1936	Capt., Welsh Guards. U.K. (1939-1943), Middle East, Greece (1943-1945).
Mrs. HOPPER, B.A. (Miss H. KIERNAN)	1935-1936	Postal censorship, 1942; B.B.C. Monitoring Service, 1943-1945.
Mrs. DUNBABIN, B.A. (Miss A. D. D. de LABILLIERE)	1935-1936	Red Cross Hospital Supply Depot, 1940-1941; Red Cross Prisoners of War Dept. (Educational Books Section), 1941-1945.
Mrs. STUBBINGS, B.A. (Miss J. M. LAING)	1935-1936	Work for War Office at Royal Geographical Society, 1939-1941; War Office (G.S.G.S.), 1941-1943; Foreign Office, 1943-1945; I.S.T.D., Oxford, 1945.
W. J. MACAULAY.	1935-1936	Lieut., Intelligence Corps. Fifth Army Photo Intelligence Centre, Italy.
Mrs. J. M. COOK, B.A. (Miss E. M. ROBERTSON)	1935-1936	Air-Raid Warden.

WAR SERVICE OF STUDENTS

J. R. B. STEWART, M.A.	1935-1936	Lieut., Cyprus Regt. Egypt, Greece, Crete, 1941. Taken prisoner in Crete, 1941.
Miss H. THOMAS, M.A.	1935-1936	Cypherer in H.M. Legation, Athens, 1939-1941; Junior Civil Assistant, War Office, 1941-1943; Political Intelligence Centre, G.H.Q., M.E., 1943-1944; Temporary Assistant Principal, War Office, 1945; Temp. Administrative Officer II, Research Dept., Foreign Office, 1945-1946.
J. L. BARBER, M.A.	1936-1937	Capt., Royal Signals. Intelligence, Palestine, Egypt, Libya, Tunisia, 1941-1943; home service, 1943-1946.
Miss Q. M. BLENCH, M.A.	1936-1937	W.A.A.F.
V. R. D'A. DESBOROUGH, M.A., B.Litt.	1936-1937	T/Capt., R.A. Psychological Warfare Branch, Egypt and Greece, 1944-1946; att. Allied Military Mission in Greece, Aug.-Oct. 1944.
D. L. DONN.	1936-1937	S/Sgt., R.E. Middle East, Greece; Monuments, Fine Arts and Antiquities Commission, Greece, 1944-1945.
J. G. GRIFFITH, M.A.	1936-1937	T/Major, R.A. and East Africa Artillery (G.S.O.II (R.A.)), H.Q. R.A., East Africa).
Prof. J. S. MORISON, M.A.	1936-1937	Seaman, R.N., 1940-1941; British Council, 1941-1946 (attached to Iraq Army, 1941-1942; Representative of British Council in Palestine and Transjordan, 1942-1946).
D. W. S. HUNT, O.B.E., M.A.	1937-1938	Col., I/Welch. Western Desert, Greece, Crete, Libya, Tunisia, Sicily, Italy. Responsible for Official History, Italian campaign, and for Field-Marshal Alexander's despatches, Africa, Sicily and Italy. O.B.E., three times mentioned in despatches.
Miss L. H. JEFFERY, M.A.	1937-1938	Section Officer, W.A.A.F. Intelligence, R.A.F. Medmenham, 1942-1945.
Miss E. Y. NISBET, B.A.	1937-1938	Civil Defence; Save the Children of Greece Fund, Glasgow.
F. H. STUBBINGS, M.A.	1937-1938	Staff of H.M. Legation, Athens, 1939-1940; Assistant to Naval Control Service Officer, Athens, 1940-1941; staff of H.M. Embassy, Cairo, 1941-1942; Office of Minister of State, Cairo, and Temporary Third Secretary at H.M. Embassy to Greece, Cairo, 1942-1943; I.S.T.D., Oxford, 1944-1945.
A. J. BEATTIE, M.A.	1938-1939	Major, R.A. and Intelligence Corps, Home Forces, France and Germany; Senior Education Officer, Mil. Gov. for Hanover, Brunswick and Oldenburg. Mentioned in despatches.
R. BRADBURY.	1938-1939	Ministry of Labour and National Service.
O. A. W. DILKE, M.A.	1938-1939	Capt., Intelligence Corps. U.K., M.E., Italy, Algeria.
The Hon. Mrs. HANKEY (Miss V. FISHER)	1938-1939	Personal Assistant in Air Ministry, 1940-1941; Joint Broadcasting Committee, 1941; Office of Press Attaché, H.M. Embassy, Madrid, 1943-1944.

J. L. GAULDIE, M.A.	1938-1939	Lieut., R.N.V.R. North Sea, Western Approaches, Force 'H' Gibraltar, South Atlantic, East Indies.
J. OGILVIE, A.R.I.B.A.	1938-1939	Major, R.E., 928 Indian Works Section (Air-fields); India, Arakan, Burma, Singapore.
J. W. O. PLATT, B.A.	1938-1939	Capt., 19 Hyderabad Regt., Indian Army.
C. A. RODEWALD, M.A.	1938-1939	Pte., Non-Combatant Corps, 1940-1946.
A. SILCOCK, F.R.I.B.A.	1938-1939	As a civilian acted as Assistant Military Attaché, Athens, 1939; on mission to Far East, 1941; Staff Colonel, Burma Army H.Q., 1941-1942; F/Lt., R.A.F., 1940 and 1943-1945 (Intelligence and editor of service journal).

Οἷδ' Αἶδαν στέρξαντες ἐνόπλιον, οὐχ, ἅπερ ἄλλοι,
στάλαν, ἀλλ' ἀρετὰν ἀντ' ἀρετᾶς ἔλαχον.

Stanley CASSON, M.A., F.S.A. Admitted as Student 1912-1913; Assistant-Director 1919-1922. Lieutenant-Colonel, Intelligence Corps. Holland, 1940 (special mission); Greece, 1940-1941; instructor at Intelligence Training Centre, 1939-1940 and 1941-1944. Killed in an air accident while on his way to take up a senior appointment at G.H.Q., M.E., in a branch dealing with Greek affairs, June 1944.

John Devitt Stringfellow PENDLEBURY, M.A., F.S.A. Admitted as Student 1927-1928; Curator at Knossos, 1929-1934. Captain, General List. Crete, 1940-1941 (special duties). Killed in action at Herakleion, 22 May 1941.

David John WALLACE, B.A. Student privileges, 1937-1939. Major, K.R.R.C. Press Attaché, H.M. Legation at Athens, 1939-1941; Middle East and Greece, 1943-1944 (Liaison Officer between H.M. Embassy to Greece in Cairo and Greek guerillas). Killed in action in Epirus, August 1944.

For obituary notices see *BSA* xli, 1-9.

THE MYCENAEAN POTTERY OF ATTICA

(PLATES I-18.)

PREFATORY NOTE.

The following paper was for the most part written early in 1939 and embodies the results of studies in Greece during the preceding year. Professor A. J. B. Wace, who suggested the subject to me, and to whom I am continuously indebted for encouragement and criticism, has elsewhere pointed out (notably, in collaboration with Professor Carl Blegen, in an article in *Klio*, 1939, 131 ff.) the need for a systematic and regional study of L.H. III pottery. The term covers wares produced over a period of at least three centuries (as long as from the reign of Charles I to the present day), and distributed over the Eastern Mediterranean from Sicily to Palestine. Within this wide range the existence of considerable variety has long been recognised, but not to any extent the nature of the variations, produced in part by the passage of time, in part by locally differing materials and traditions. This paper is an examination of what L.H. III pottery has come to light in one geographically well-defined region, Attica, and an attempt to discern the influences at work in its production, and its relation to similar pottery elsewhere.

The paper in its first form was submitted as a fellowship thesis to the Governing Body of Emmanuel College, Cambridge. Later in 1939 it was fully revised, but publication has been delayed by the war. Meanwhile there have appeared in Sweden two volumes: *The Mycenaean Pottery, Analysis and Classification*, and *The Chronology of Mycenaean Pottery*, by Arne Furumark, which together constitute the most complete survey of Mycenaean pottery so far made. The present paper takes no account of this monumental work, with whose conclusions I find myself in general agreement (see *JHS* lxiii, 122). But more remains to be said, particularly on the question of regional groups and styles within the L.H. III period, and I do not feel any apology necessary for the present appearance of these pages, more especially as the material under discussion has previously met with but scant description, while many of the pots (and these of major importance) are wholly unpublished.

Note on bibliography.

Reports of excavations and articles on particular sites are mentioned in the list of sites in the introductory part. The following is a list of books more frequently referred to, with the abbreviations used:

Chamber Tombs. A. J. B. Wace, *The Chamber Tombs at Mycenae* (*Archaeologia* lxxxii).

Evans, *Tombs*. A. J. Evans, *The Prehistoric Tombs of Knossos*.

Fimmen. D. Fimmen, *Die Kretisch-Mykenische Kultur*.

FLMV. A. Furtwängler and G. Löschcke, *Mykenische Vasen*.

P. of M. A. J. Evans, *The Palace of Minos at Knossos*.

Προϊστ. Ἐλευσίς. G. E. Mylonas, Προϊστορικὴ Ἐλευσίς in Ἐλευσινιακά, ed.

K. Kourouniotis.

Prosymna. C. W. Blegen, *Prosymna*.

Schachtgräber. G. Karo, *Die Schachtgräber von Mykenai*.

Zygouries. C. W. Blegen, *Zygouries*.

Catalogues:

B.M. Cat. E. J. Forsdyke, *Catalogue of Vases in the British Museum*, Vol. I, pt. i.

Collignon-Couve. M. Collignon and L. Couve, *Catalogue des Vases peints du Musée Nationale d'Athènes*.

CVA. Corpus Vasorum Antiquorum.

Graef. B. Graef, *Die Antiken Vasen von der Akropolis zu Athen*, Heft I.

Munich Cat. J. Sieveking and R. Hackl, *Die Königliche Vasensammlung zu München*, Band I.

I. PROLEGOMENA.

SITES IN ATTICA: HISTORY OF EXCAVATION. (See map)

Spata. Apart from casual finds on the Athenian Acropolis, the first discovery of Mycenaean pottery in Attica was made at Spata, in the Mesogeia, in 1877. Here two chamber-tombs cut in the soft limestone hillside were excavated by the Greek archaeologist Stamatakis. The first report of the finds was made by A. Milchhöfer in *AM* ii (1877), 261-76. Schliemann also published an account of the finds, but his conclusions as to their date cannot now be accepted. (Schliemann, *Mycenae*, Engl. edn. (1878), pp. xli f.) A detailed catalogue of the objects was published by B. Haussoullier in *BCH* ii (1878), pp. 185 ff. They are also described and illustrated by Furtwängler and Löschcke in *Mykenische Vasen* (p. 35 and pl. XVII). The pots, of L.H. III date, were the least spectacular of the finds, and so perhaps met with less sympathetic treatment than the other objects of metal, ivory, etc., both in the excavation and the publication. The finds are now in the National Museum in Athens.

Menidi. In 1879 was discovered the well-preserved tholos tomb between Athens and Menidi. This was carefully excavated by the German Archaeological Institute in Athens, and a detailed report published by H. G. Lolling in 1880 (*Das Kuppelgrab bei Menidi*). It was clearly the tomb of a person of importance, and the numerous ornaments and other objects associated with the



MAP OF ATTICA, SHOWING MYCENAEAN SITES.

burial were of good artistic quality. The pottery was good and plentiful; but it was unfortunately for the most part very badly broken and much damaged by the soil and the damp. It is discussed by Furtwängler in the original excavation report, and the better pieces are illustrated by him and Löschcke in *Mykenische Vasen* (p. 39 and pl. XXI). Sherds from the dromos are described by Wolters in *JdI* xiv, 114.

Alikí (Ἀλική), **Pyrnari**, **Trakhones**, **Vari**. In the low-lying country south of Athens, between Hymettos and the sea, there must have been several fairly important Mycenaean cemeteries, and another near Vari; but these unfortunately were discovered by local inhabitants in and about 1881 and excavated in the interests of antique dealers. Consequently any exact information about the finds is lost. The pots removed from the tombs passed into the antique market; some were acquired by the Greek Archaeological Society, and are now in the National Museum with slightly uncertain attributions of origin to *Trakhones*, *Pyrnari*, and *Vari*; others are in the Altes Museum in Berlin, labelled as from *Haliki*. A number of them are published in *Mykenische Vasen* (p. 37 and pls. XVIII, XIX).

Athens. When the Acropolis Museum was being built in 1865-6 numerous Mycenaean sherds and a few whole pots were found. These were not published at the time, but the more important pieces were described and illustrated by Furtwängler and Löschcke in *Mykenische Vasen* (p. 34 and pl. XVI).

From 1885 to 1890 P. Kavadias and G. Kawerau conducted a general excavation of the Acropolis, and discovered a great deal more Mycenaean pottery at various points. Their excavations were finally published in 1907, and the Mycenaean pottery (with the earlier finds) in 1909. (Graef, *Vasen von der Akropolis zu Athen*.) This material is now in the National Museum in Athens.

It is said that a great many plain sherds were thrown away on this excavation. Certainly there are none among the sherds in the Museum, though there are a few whole pots of plain ware. Furtwängler and Löschcke mention fragments of goblets of their shape 84, but these are not now to be found. The plain pots preserved are:

- 3 kylikes (Graef nos. 166, 7, 8), type H of Fig. 10;
- a hand-made askos (Graef no. 164), type B of Fig. 22;
- a jug (no number), type D of Fig. 20.

A plain, coarse stirrup-jar mentioned by Furtwängler and Löschcke (*FLMV*, 35) is not to be found in the Museum.

The pottery published by Graef includes some M.H. and some L.H. I and II as well as L.H. III; but he did not publish all the L.H. III pots. A

number of small or inferior specimens which he omitted were described in detail by Pelekidis (Δελτ. i, παρ., 34 ff.), but I have been unable to trace the actual pots in the museum.

The finds from the Acropolis include representative pieces of all the L.H. III period. But the latter half of the period is much more fully represented than the earlier. The stirrup-jars belong largely to the second half of the L.H. III period, and the latest ones have affinities with the Salamis class. Fragments of panel-style bowls are common. There are fragments of good middle-period kylikes, but none complete.

This is, of course, a habitation-site. A few Mycenaean graves¹ have been discovered casually in Athens in the last forty or fifty years, but no Mycenaean cemetery, unless we include the sub-Mycenaean graves excavated by the German Institute in the Kerameikos. There have also been a few other finds of pots not from graves.²

Eleusis. D. Philios, excavating at Eleusis in 1887, found an L.H. II grave with a few good pots (published in 'Εφ. 'Αρχ. 1889, 187 ff.). This find was not, however, followed up by further search for prehistoric remains until 1895, when excavation of the sanctuary itself appeared to be completed, and A. Skias took up the excavation of the acropolis. He dug from 1895 to 1897, and his finds were published in 'Εφ. 'Αρχ. 1898, 51 ff. They include pottery of all three phases of Late Helladic, as well as some belonging to the Middle Helladic and Geometric periods.

Further investigation of this part of the site in 1898 and in 1902 produced more M.H. and L.H. I and II pottery (published by Skias in 'Εφ. 'Αρχ. 1912, 1 ff.). Excavation was again resumed on the south slope of the acropolis in 1931 by K. Kourouniotis and G. E. Mylonas, and revealed extensive evidence of habitation there in the Middle and Late Helladic periods. The finds of pottery from all these various excavations were studied as a whole group, classified in the light of modern knowledge of Helladic pottery, and published together by G. E. Mylonas in Προϊστορική 'Ελευσίς (Athens 1932). They are preserved in the Eleusis Museum.

In 1933 fresh excavations were conducted inside the sacred precinct, and a building of Mycenaean date was discovered below the Peisistratid Telesterion. Associated with it were L.H. sherds. In the same year a Mycenaean layer came to light under the Lesser Propylaea, and in it the im-

¹ *AJA* 1894, 113, two Mycenaean graves discovered by Dörpfeld between Areopagos and Pnyx.

AA 1931, 213, a rich grave (apparently L.H. II) below Philopappos hill.

Hesperia iv, 318 ff., grave in Agora, disturbed in antiquity (same as that mentioned in *AA* 1933, 198).

AM 1910, 35, two pots from grave by Acropolis, now in Heidelberg.

The pottery from these is insignificant. More important is *AJA* 1939, 578 ff.; *Hesperia* ix, 274 ff.; chamber tomb on the slope of the Areopagos.

² *AM* 1907, 157 and 558 f. with pl. xxv, 1; *Kerameikos* i, pl. 5. Stirrup-jar from Dipylon.

AM 1910, 33 f. Stirrup-jar found near the Hadji-Kosta Orphanage.

portant find of a large inscribed stirrup-jar like those from Thebes and Tiryns (Δελτ. xiv, παρ., 2 ff., 22-4).

In 1934 Kourouniotis and Mylonas continued their investigation of the prehistoric settlement on the acropolis. Most of the L.H. pottery recovered is unfortunately very fragmentary. A report on the excavations and finds appeared in Δελτ. xv (παρ., 23 ff.) and more fully in *AJA* 1936, 415 ff., where also the inscribed stirrup-jar is discussed at length.

Thorikos. The oval 'tholos' tomb at Thorikos, situated on the saddle just below the summit of the hill Veletouri, was first noticed by Milchhöfer in 1886, and a preliminary investigation of it was carried out under the supervision of the ephor Staïs in 1888. The excavation was resumed by Staïs in 1893, and a little fragmentary pottery (L.H. I-II) was found; but the tomb had apparently been robbed at some previous date. At the same time Staïs excavated the round tholos on the east slope of the hill. This contained three graves, of which two had been robbed in antiquity and the third, although undisturbed, contained only bones. There were also two stone structures of a later date, probably tombs, but, like the others, looted. A certain number of gold and other objects were found scattered inside the tholos, and considerable fragments of very fine pottery of L.H. II style (some illustrated in 'Εφ. 'Αρχ. 1895, pl. 11, nos. 1 and 2).

On the summit of Veletouri were discovered remains of a prehistoric settlement dating partly from the M.H. period, and partly from the earlier phases of L.H. The pottery finds recovered from this settlement are inconsiderable. (Reports of the excavations: V. Staïs in Δελτ. 'Αρχ. 1890, 159; Πρακτ. 1893, 12 ff.; 'Εφ. 'Αρχ. 1895, 221 ff. The pots are now in the National Museum at Athens.)

There seem to be no traces of habitation at this site in the third Late Helladic period. There is, however, in the Museum at Geneva a group of nine L.H. III pots of good fabric which are said to come from Thorikos. They are apparently from a tomb.

Brauron, Kopreza, Ligori, Steiria. Shortly after the investigations at Thorikos a number of Mycenaean chamber-tombs were excavated by Staïs at four other Attic sites. (Report published in 'Εφ. 'Αρχ. 1895, 196 ff.) On the coast near Vraona (the ancient Brauron), by the chapel of H. Georgios, three such tombs were opened. Two more were excavated on the bay of Porto Rapti at a site probably to be identified with the ancient Steiria. A third cemetery was discovered on the road from Porto Rapti to Markopoulo, at a site called Ligori; and a fourth at Kopreza, a spot two kilometres south-east of Markopoulo. The finds from these tombs are now all together in the National Museum at Athens. The pottery is in general of poor quality,

and most of it seems to belong to the latter part of the L.H. III period. Some of the pots from Kopreza, however, represent an earlier stage of L.H. III; and Professor Wace tells me that an L.H. II alabastron in the British Museum (*B.M. Catalogue I. i*, A 781) is from Markopoulo, though ascribed in the catalogue to Mycenae.

Porto Raphti road, Pikermi, Velanideza, Vourvatsi. At a point 'on the left of the road to Porto Raphti, about 40 m. beyond the 33rd kilometre stone from Athens' some more Mycenaean chamber-tombs were explored in 1927 by N. Kyparissis. These would appear to be part of the same cemetery as that investigated by Staïs at the site he refers to as Ligori. The pots found in the tombs (now in the National Museum) seem to be of much the same date as those found by Staïs. About the same time Kyparissis excavated Mycenaean tombs at Pikermi (on the Raphina road), at Velanideza (near the chapel of H. Soter, south-east of Pikermi), and at Vourvatsi, half-way between Koropi and Vari.

The finds from these sites undoubtedly constitute the best-preserved and most significant group of Mycenaean pottery yet found in Attica. A brief report of the excavations with illustrations of some of the pottery appeared in *Δελτ. xi, παρ.*, 60 ff., but all the material has not yet been published in detail. By permission of Mr. Kyparissis, however, I have studied the whole of it in the National Museum in Athens, and it is through his courtesy that I am able to publish descriptions and photographs of the pottery in this paper.

H. Kosmas. In 1930 a Helladic settlement at H. Kosmas on the west coast of Attica was explored by G. E. Mylonas. This site was occupied in the Early Bronze Age and again in the Late Bronze Age. The pottery of the later period is, however, neither striking nor plentiful. An account of the excavations is published in *AJA* 1934, 258 ff.

Marathon. In 1933 Professor Sotiriadis excavated a Mycenaean beehive-tomb in the plain of Marathon. Since it is a stone-built tomb, and contained a gold cup, it might be supposed to be the tomb of someone of importance. The pottery, however, is very poor (and ill preserved), and seemingly of a quite late date in the L.H. III period. Accounts of the excavation appeared in the Greek magazine *Νέα Ἑστία* (1934, pts. 191-2) and in *Πρακτικά τῆς Ἀκαδημίας Ἀθηνῶν*, 1934, 261 ff. (cf. *AA* 1935, 179 ff.).

North slope of the Acropolis. The American excavations begun in 1931 under the direction of O. Broneer revealed evidence of L.H. III settlement on the north slope of the Acropolis at Athens. The finds from there have done much to supplement the early unscientific excavation of the Acropolis. There was more of L.H. III pottery than of L.H. I and II, and the latter half of L.H. III is the better represented. The first finds were published in *Hesperia* ii, 356 ff. See also Hazel D. Hansen in *Hesperia* vi, 539 ff.

In the 1937 and 1938 campaigns at the same site a deep underground stairway was cleared which once served as the approach from the Acropolis to a well at the bottom of a rock fissure. The fill removed contained a large quantity of Mycenaean pottery dumped there, apparently all within a short period, after the well went out of use. This deposit is important as illustrating the latest phase of Mycenaean pottery in Athens, and presents some interesting local peculiarities. It has been fully studied and published by Broneer in *Hesperia* viii, 317 ff. (See Appendix, below p. 58 ff.)

Minor Sites. There have also been a good number of casual finds of Mycenaean pottery in Attica. A stirrup-jar from Tatoi (the ancient Dekeleia) is mentioned by Furtwängler (*FLMV*, 41), and there is a late stirrup-jar from Keratea in Karlsruhe (cf. p. 23 below). Mr. T. J. Dunbabin has drawn my attention to two L.H. III pots from Kara on the west slope of Hymettos, now in the Ashmolean Museum (no. AE 312). They are a deep cup (shape rather like Fig. 14 F) and a flat-topped stirrup-jar (shape of Fig. 2 G), and are probably from a grave. L.H. III pots are frequently seen in the Athens antique shops, and are often ascribed to Attica, particularly to the Mesogeia. The collection of Mr. G. Empedokles in Athens contains a large number of L.H. III pots whose supposed provenance is Attica.

Besides those already mentioned, the following minor Mycenaean sites in Attica are recorded. There is, however, no L.H. III pottery of any importance from them.

Aphidna: a few L.H. III sherds (Fimmen, *Kretisch-Mykenische Kultur* p. 6).

Cave of Pan on Mt. Parnes, near Khasia: sherds (Fimmen, p. 9).

H. Khristos, near Koropi: Cyclopean walls (Fimmen, p. 7).

Kaki Thalassa: sherds from a cave (Fimmen, p. 7).

Katosouli: Mycenaean walls (Karo, *Mykenische Kultur*, in *RE*, Suppl. Vol. vi, 608).

Liopesi: poor Mycenaean grave (Fimmen, p. 7).

Phaleron: sherds (Fimmen, p. 8).

Raphina: settlement-site (Karo, *l.c.*).¹

It is readily perceived from the foregoing list of sites that in Attica, as in many other parts of the Greek world, our knowledge of the Mycenaean period depends far more on evidence from tombs than from habitation-sites. What few Mycenaean settlements have been excavated in Attica fail to tell us much. The remains so far found at Thorikos are meagre, and consequently give us no

¹ P.S.—Late Mycenaean fragments are reported from two graves found at Skaramanga during German military works; also from a grave or graves at Kalamaki (*AA* 1943, 303).

information about the duration and history of the settlement, except that it was occupied in the Middle and Late Bronze Age. Of H. Kosmas we can tell little more than that it was occupied in the Early Bronze Age and again in the Late Bronze Age. Eleusis is in rather a different than a better position. There later development of the site must have disturbed much of the evidence; and excavation has not been sufficiently continuous or complete to make the best of it. On the Athenian Acropolis, too, the possible evidence has been disturbed and damaged by continued habitation and by excavation at a date when prehistoric archaeology was in its infancy. Fortunately the settlement on the north slope of the Acropolis did not suffer the second accident, and is now in the skilled hands of the American School in Athens. In the rest of Attica the sites of a few settlements are known, and further excavation (*e.g.*, of the mound at Vraona or of the hilltop above the Spata tombs) might prove illuminating; but for the present our knowledge depends almost entirely on finds from graves.

What is more, the records, at any rate of the earlier excavations, do not give all the details one could wish for; and we must therefore rely in questions of classification on the evidence the pottery itself provides—that is, on a study of the development of shapes, decorative patterns, and general technique. In the Mycenaean period particular types of decoration are habitually applied to particular shapes of pot, and so it seems best to consider the two together. With this in view, pottery-types—stirrup-jars, kylikes, and the rest—will first be discussed individually, and where possible their evolution traced through the L.H. III period. Then an attempt will be made to correlate these separate lines of evolution so as to establish a network of evidence for the chronology and development of Attic Mycenaean as a whole. A discussion of general technique will precede the typological study, since the potter's materials and his methods of using them are much the same whatever shape of pot he is making.

FABRIC AND TECHNIQUE.

Variations in the colour and quality of clay and paint may be due to any one of a number of causes: difference in materials used, differences in the conditions of firing or other processes or differences in the soil in which the pottery has lain buried. Obviously, therefore, before any deductions can be made from a study of these variations, one must be reasonably certain which of these causes has been operative. The majority of Mycenaean pottery, in Attica as elsewhere, is made of well-levigated clay, with a smooth slip, and decorated with a “lustrous” paint—that is, a paint which when fired has a glossy surface. There are, however, variations in colour and texture; and

one problem is to determine which of these are due to accidental causes and which not.

The commonest accidental variation is in colour. It is well known that the same clay and paint will burn either red or black, according to conditions of firing. The best proof of this is the occurrence of pots (some of the red-painted kylikes from Vourvatsi, for example) on one side of which the coating of paint is bright red, while on the other it is black. Again, the clay of a number of the Vourvatsi pots is of a deep pink. This pink, however, is confined to the surface, and is probably due merely to long burial in the deep red soil of the Mesogeia.

If the variation in the colour or texture is produced deliberately by the use of different materials or methods, the question still remains whether it is indicative of manufacture at different places or in different periods. (Cooking-pots and other vessels intended for rough use will naturally be made of coarser clay at any period, but such differences are readily recognised.)

The chronological changes of fashion are usually more easily recognised than local variations, for certain technical changes are observed to accompany changes in the shapes and decoration of the pottery. Thus the L.H. III pottery which on various grounds has been recognised as early—for example, the Tell-el-Amarna sherds—has a fine smooth biscuit, generally light buff in colour, decorated with a distinctly red and glossy paint. L.H. III pottery, on the other hand, which from its stratification or on other grounds is accounted late (the “Granary Class” for instance), is generally of a poorer and grittier clay, with purplish-brown or black paint. These two extremes show the general tendency of nearly all Mycenaean pottery—a deterioration in the quality of the clay and a change from red to brown or black in the paint. Many pots fall between these extremes: but it is difficult to measure their position with any exactness. As a criterion of date, fabric must be used only in conjunction with consideration of shape and pattern.

As for local differences of fabric, certain limited observations may be made. A good deal of pottery from the Argolid (particularly from the Argive Heraeum tombs) is of a pale greenish clay, rather like that of Corinthian ware. Such ware does not occur in Attica, except for one or two isolated specimens (a piriform stirrup-jar, a conical rhyton, and a fragmentary ‘tankard’ from Vourvatsi. See pp. 23, 55, 35 below). These exceptional pieces may be imported; but the fact that they are exceptional seems to indicate that the bulk of the Mycenaean pottery of Attica was not imported from the Argolid, but was made locally. The pottery is, of course, closely related to Argive Mycenaean in its shapes and decorative patterns, but even among these there are some which do not occur in the Argolid (*e.g.*, stirrup-jars of type H,

Fig. 2; cups of type C, Fig. 14; pyxides of type D, Fig. 18; and a particular flower pattern, p. 57 below). The local potters did, in fact, to some extent develop on their own lines, particularly towards the end of the L.H. III period, as the influence of Mycenae itself waned. Certain late stirrup-jars—for example, one from the Dipylon (*AM* 1907, pl. XXV 1) and one from Ligori (Pl. 3. 10)—are of a distinct brown ware, with a smooth surface, and decorated in a black paint with a slightly metallic lustre. This ware is not paralleled anywhere outside Attica. Similarly, the late pottery from the Acropolis, though related to the ‘Granary Class’ of Mycenae, is quite distinct from it (cf. Broneer in *Hesperia* ii, 372).

The clay of the earlier L.H. III pottery of Attica is usually of a clear light buff colour, sometimes with a pinkish tinge, according to firing, and quite smooth and hard. It is, in fact, not much unlike ‘yellow’ Minyan. But as the period advances the biscuit assumes a dirtier colour; it betrays its date also by its texture, for the later products have a matt surface (sometimes unslipped) which is easily damaged by rubbing.

The paint varies from Indian red to all shades of brown. The late pots of smooth brown fabric referred to above have generally a black paint with a hard and metallic lustre, but the general tendency is for a less glossy paint as the period advances. (This may be partly a consequence of the more absorbent surface of the clay.) The later patterned kylikes and the later cup types are usually decorated in a dark brown, and on the latest bowls and kraters the paint is purplish-black. But it is important to remember that the colour of paint is only partially indicative of date.

At Vourvatsi the clay is generally good and hard; even the later pots there—except larger vessels such as jugs—do not show a much rougher or grittier surface. But from some sites, as Brauron, Steiria, Ligori and the Porto Rapti road, all the pottery is of poor, rather dirty-looking clay, with a dull surface, and decorated with dull purplish-brown paint. The types of pottery found at these sites are all such as we suppose on other grounds to be late. But the equally late pottery from the Acropolis is on the whole of a rather better fabric; and so the inferior quality of pottery from these sites must be partly due to inferior materials or workmanship. Such variations of quality in different localities support the probability that Attic Mycenaean was locally made.

Note on the use of white paint on L.H. III pottery.

On a certain number of L.H. III pots additional details of design are added in white over the usual red or brown paint. This fashion had been fairly common in L.H. I, lapsed in L.H. II, and occurs sporadically in L.H. III. On the whole the fashion seems to have been more popular in Rhodes and Cyprus than in Greece itself, but does sometimes occur in Attica (see p. 29 below).

The following list is not exhaustive, but indicates representative examples of this use of added white from other districts.

Kylikes: 'octopus' designs picked out in white.

- Rhodes: *CVA B.M.* v, pl. 5, nos. 24, 29.
 CVA Copenhagen ii, pl. 50, nos. 1-4.
 Munich Cat. no. 17 pl. 1.
 Mycenae: Ath. Mus. 2650 (fragment).
 Melos: Ath. Mus. 5783.
 Aigina: Munich Cat. no. 16 pl. 1.
 Delphi: *Fouilles de Delphes* v, 19, fig. 89.

Similar octopus designs occur on other shapes also: *e.g.*,

- Jugs*: Rhodes: *CVA Copenhagen* i, pl. 44, no. 1.
 Argive Heraeum: *Prosymna*, pl. VIII, no. 413.
Jug with strainer-spout: Rhodes: *CVA Rhodes* ii, pl. 13, no. 8.
Stirrup-jar: Rhodes: *CVA Rhodes* ii, pl. 2, no. 5.
Kraters: Cyprus: *CVA B.M.* i, pl. 18, no. 7; pl. 20, no. 9; pl. 21, no. 2.
 Swedish Cyprus Expedition i, pl. CXX, nos. 3, 4.

There is one Cypriot krater in the British Museum on which the whole design (two birds) is executed in white on a broad zone of the normal dark-brown paint (*CVA B.M.* i, pl. 21, no. 12). Certain late kraters from the Argolid have white dots sprinkled over parts of the designs with which they are decorated: *e.g.*,

- Mycenae: The Warrior Vase. *FLMV*, pls. XLII, XLIII.
 Ath. Mus. 2773 (large snake design).
 Tiryns: Schliemann, *Tiryns*, pls. XIV, XV, XVIIb, XXI etc. (fragments).

Sometimes simple patterns—quirks, lozenges, circles, zigzags—are painted in white on a stripe of the usual red brown paint. This occurs on a few stirrup-jars, and on shallow bowls of a Cypriot type: *e.g.*,

- Stirrup-jars*: Aigina: 'Εφ. 'Αρχ. 1910, pl. 6, no. 3 and p. 189, fig. 3.
 Argive Heraeum: *Prosymna*, fig. 723.
 Mycenae: fragment in Athens Museum.
 Rhodes: *CVA Copenhagen* ii, pl. 58, no. 1.

Several striking fragments from Tell-el-Amarna have more elaborate patterns in white on a very broad red or brown band. (Petrie, *Tell-el-Amarna*, Pl. XXVII, 26-9, 32-4).

Shallow Bowls: Cyprus: *CVA B.M.* i, pl. 16, nos. 19-21; pl. 17, nos. 14, 17, 19-21.

There are a number of examples in the Cyprus Museum at Nicosia. Among the Mycenaean pottery from Scoglio del Tonno, in the Taranto museum, are two sherds, apparently from the shoulder of large jars, with patterns in added white on broad stripes of dark brown.

II. TYPOLOGY.

Stirrup-jars. (See Figs. 2, 3 and Pls. 1-3.)

The stirrup-jar, a closed pot with a false neck with a handle attached either side of it and a short tubular spout to one side, is the most characteristic shape of the L.H. III period. The type persists right through the period, and exhibits many varieties of shape and of decoration; but though several shapes may have been in use at a time, it is yet possible, by studying decoration

as well, to trace a typological series. This, since stirrup-jars are found at nearly all Mycenaean sites, provides valuable dating evidence.

The shape derives from Crete, where it first appears in L.M. Ib. From the start two varieties may be distinguished—squat and tall—derived from the squat and tall two-handled jars which were common in M.M. III and still

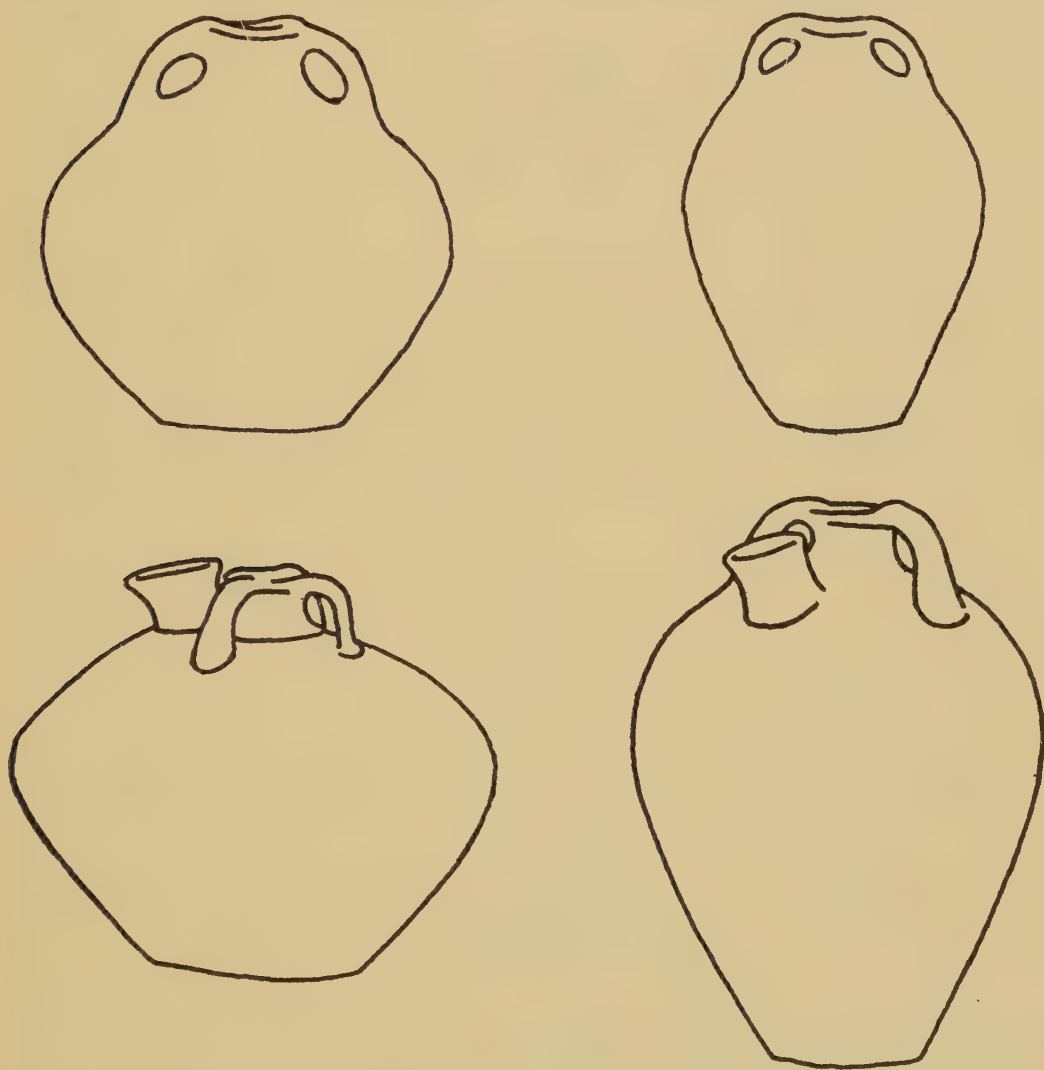


FIG. 1.—THE ORIGIN OF L.M. I STIRRUP-JARS.

in use in L.M. I. (For examples of the squat type see Hawes, *Gournia*, pl. VII, no. 18; pl. IX, nos. 4, 5, and pl. H; and of the tall type, *ibid.*, pl. VII, no. 24 and pl. IX, no. 6. Cf. Fig. 1 here.) A notable feature of these earliest

stirrup-jars is that they often have *three* small handles attached to the false neck.

Both squat and tall varieties continue to be found among Mycenaean specimens, although they had not an equal popularity in all regions. The examples quoted above also show that the decorative scheme of the Mycenaean stirrup-jar goes back to a Cretan origin. Even so early it is usual for the lower half of the pot to be decorated with horizontal bands, while the upper part bears some more imaginative pattern. The pot shown in *Gournia*, pl. H. however, shows a different class of decoration—an all-over 'marine' pattern. (These examples are all chosen from *Gournia* for ease of reference; but the early shapes do seem less common elsewhere. Perhaps the stirrup-jar was invented in this 'industrial' town.)

Blegen (*Prosymna*, p. 452) says 'So far as I know the earliest examples of the stirrup-vase on the mainland do not antedate L.H. III.' An example of the squat L.M. I shape (with three handles) decorated with the figure-of-eight shield pattern is to be seen in the Khalkis Museum, but appears to be of Cretan fabric. A handle fragment of a similar one is among the Acropolis sherds in Athens (Graef, no. 48, pl. 2. It is cautiously, but correctly described in the text). This appears to be the only example from Attica of a stirrup-jar earlier than L.H. III, and one would hesitate to declare from so small a fragment where it was made.

Probably the usual types of stirrup-jar on the mainland are descended from more developed types introduced, as Wace says (*Chamber Tombs*, p. 170), at the beginning of L.H. III. Although the stirrup-jar appears to have originated in Crete, it is far commoner on the mainland in L.H. III than in Crete in L.M. III.

Stirrup-jars have turned up at practically every Mycenaean site in Attica. Of about a hundred and thirty specimens, almost three-quarters are of types with a roughly globular body. Among these at least three varieties of shape may be distinguished, corresponding to three stages of development (types A, B, C of Fig. 2). It should be noticed that the pots vary in size from about 8 to 25 cms. high, and the difference in size involves differences in proportions. It is more difficult to model things on a small scale, and consequently the small examples usually have handles and spouts higher in proportion to the body than do larger examples. Moreover, there are many intermediate types, so that the classification by shape is not always definitive. Type C is easily distinguished, but the separation of types A and B is only justified by difference in the painted decoration as well.

Shape A occurs at nearly all Attic sites. Good examples from Vourvatsi are shown in Pls. 1. 5, 7 and 2. 1; for one from Vari see Collignon-Couve,

pl. VII, no. 117. The usual decoration consists mainly of a series of parallel stripes and fine lines running round the body of the vase and covering it from the base of the handles to the bottom. There is a stripe round the base of neck and spout, and round the top of the spout. Concentric rings are painted on the top of the false neck, with a broader ring on the outside and a spot in the middle. There are broad stripes of paint running down the

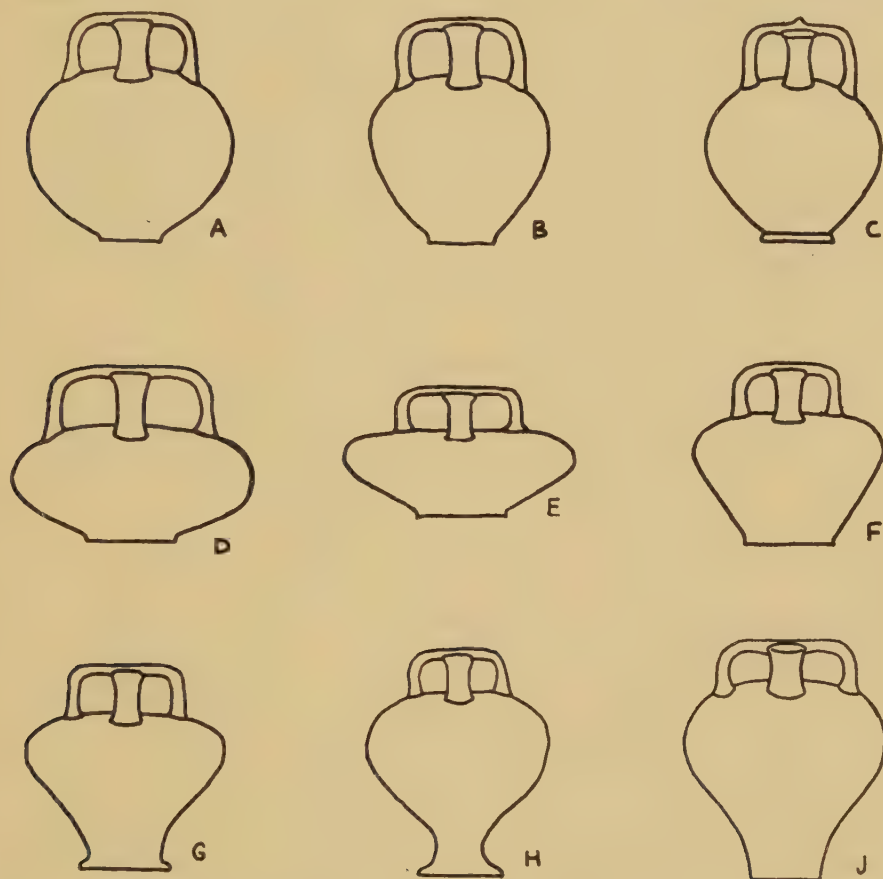


FIG. 2.—STIRRUP-JAR SHAPES.

handles. This arrangement leaves an irregular-shaped area on the shoulder which is occupied by a conventional floral ornament four or five times repeated. The shoulder pattern is a feature that persists throughout the L.H. III period, and the gradual changes in it are one criterion of date.

The basic form of the usual shoulder-pattern is shown in Fig. 4, no. 1. It is painted with a full brush, in dabs rather than lines. In this form it occurs in Attica on pots of type A from Alikí (Berlin Mus. 16; *FLMV*, pl.

XVIII, no. 124) and Velanideza (no. 2, unpublished). The pattern very soon becomes more linear in style, and assumes forms like Fig. 4, no. 2, where the broad dabs and dots have been replaced by lines and dashes. Fig. 4, nos. 3-6, show other variations. It even loses its resemblance to a flower, and we quite commonly find instead a series of angles or arcs (Fig. 4, nos. 7, 8), or even a group of chevrons (Fig. 4, no. 9). Other developments are shown in Fig. 4, nos. 10, 11, and further abstractions or substitutes are nos. 12-15. These *linear* shoulder patterns must have developed quite early in L.H. III, since most of the examples quoted above occur also at Tell-el-Amarna (cf. Petrie,

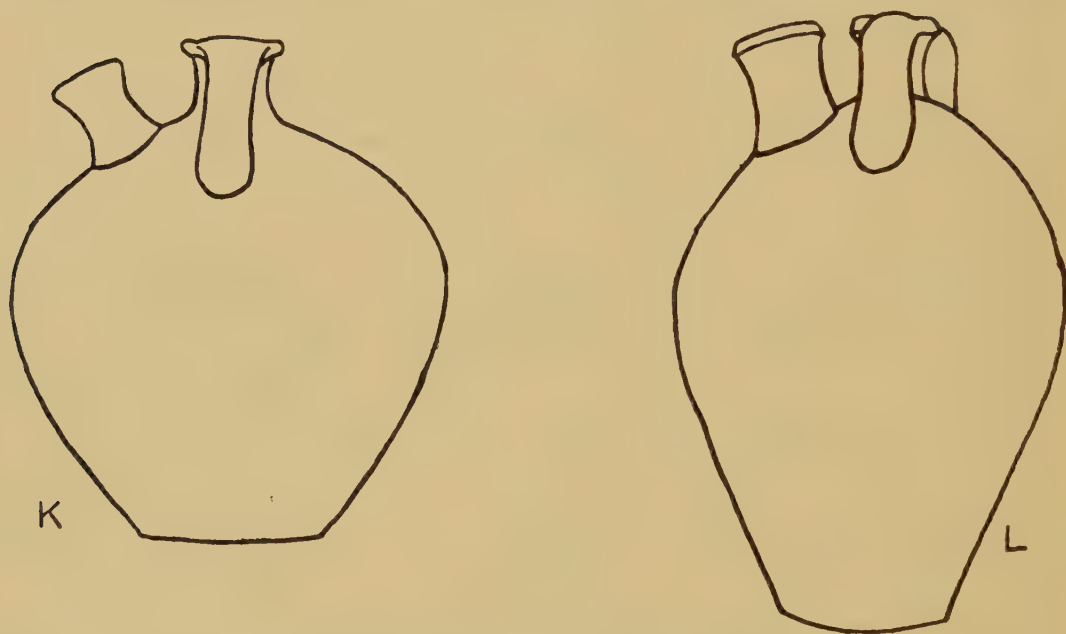


FIG. 3.—STIRRUP-JAR SHAPES.

Tell-el-Amarna, pls. XXVII, XXVIII), where they cannot be dated later than 1350 B.C. On the other hand, patterns of less abstract and linear form occur on stirrup-jars of shapes certainly later than that. So we must not regard the style of the shoulder-pattern as an infallible criterion of date. Often it must be merely indicative of the amount of care the potter gave to his work.

Type D is perhaps best classed as a by-form of the globular type A, though it probably made its first appearance later than A. An example from Pikermi has the early form of flower pattern on the shoulder, and one from Velanideza (Pl. 2. 9) has it in a linear form; but on most specimens the shoulder patterns are reduced to abstract motifs. One from Prynari (Athens,

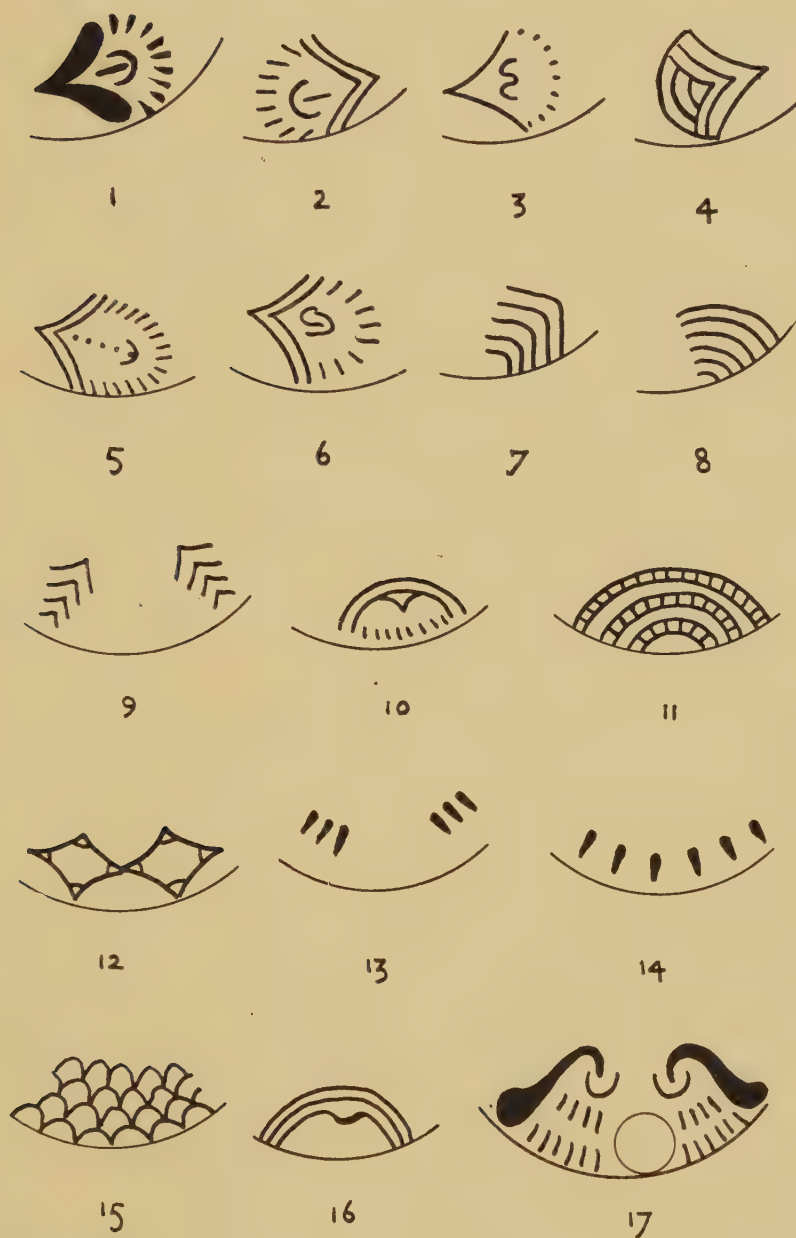


FIG. 4.—SHOULDER-PATTERNS OF STIRRUP-JARS.

N.M. 10) and one from Kopreza near Markopoulo (Athens, N.M. 3895) both have the pattern shown in Fig. 4, no. 16; another from Velanideza (Pl. 2. 7) has an even more abstract motif of small concentric circles. Another vase from Kopreza (Pl. 3. 12) bears an unusual design (Fig. 4, no. 17) which certainly looks less like an early shorthand form of the conventional flower than a later derivative of it.

At the same time there is observable a new feature in the decoration of the body of the vase in a tendency to emphasise the zone just above the broadest diameter. It is done by a different spacing of the stripes: a wider reserved band is left between them at this point, and instead of filling this band up with fine lines, the painter puts just two or three, in the middle of it (*e.g.*, Pl. 1. 6, from Vourvatsi). This feature is already present in some jars of type A (*e.g.*, Pl. 2. 1, from Vourvatsi; also the jar in Pl. 1. 7, where it occurs with a distinctive abstract shoulder-pattern). It is perhaps symptomatic of a growing feeling for stricter proportion and unity in the vase. At the same time there is a change in the shape. Type A gradually grows into type B, in which the broadest part is somewhat above half-way up, while the lower part of the profile is much straighter. Any looseness there was in the profile of A is eliminated, and the new form has almost as much emphasis on the angle of the curve as shape D, without having its squatness. It is perhaps not unreasonable to see in D a step towards the achievement of B.

It seems to have been during this search for stronger forms that the flat-topped types (E, F, G) were evolved. Their very angular profile may be due to influence from forms current in metal-work. Type E is an angular version of D, and F a deeper variety of E. The tall variety, G, looks like a deliberate attempt to avoid the squatness of the other flat-topped types. All these three varieties were current together, and we are justified in associating them in date with type B because their decoration (see below) follows the same fashions. The stirrup-jars from the Menidi tomb (about thirteen in all) belong without exception to this flat-topped group. Most are fragmentary, but they have some interesting zonal patterns (Fig. 6, bottom row). Good examples of all three varieties occur at Vourvatsi (Pl. 1. 2, 3, 4, 8, 9). But generally speaking G is not so common as E and F, of which there is a sprinkling at various Attic sites. The stirrup-jars from Spata include one each of E and G (*cf.* *FLMV*, pl. XVII).

These flat-topped types do not appear in the later phases of L.H. III, but most of them are probably a little earlier than the globular type B, or contemporaneous with it. There is no reason to suppose a period when these were the only types of stirrup-jar in use, or that globular types were ever absent from the potter's repertoire.



FIG. 5.—SHOULDER-PATTERNS OF STIRRUP-JARS.

Type H is not flat-topped, but belongs to this group in style of decoration, and is obviously related to G in shape. It is a very rare type elsewhere in Greece, though examples are known from Mycenae (*e.g.*, Athens, N.M. 2253). But there are three or four specimens among the finds from the old Acropolis excavations (Graef, nos. 106-8 and our Pl. 2. 4-6. See also Appendix, p. 58 below.)

In the painting of all these types (B, E, F, G, H) a more deliberate arrangement of the stripes is observable. They are frequently placed with just equal spaces between them, which are alternately filled with very fine stripes or left blank (*e.g.*, Pl. 3. 8, from the Porto Rapti road). The general effect to the eye is that the broad stripes are more noticeable than in earlier specimens. The decorative emphasis is borne by the zone just above the angle of the profile, which is occupied by some simple repeated pattern—a zigzag, groups

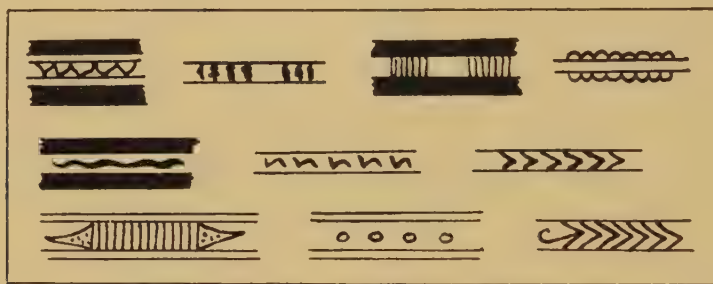


FIG. 6.—ZONAL PATTERNS FROM STIRRUP-JARS.

of vertical lines, loops attached like a lace edging to the horizontal lines, or sometimes more ambitious schemes (Fig. 6). One example of type G from Spata even has a pattern of fish in this zone (*FLMV*, pl. XVII, 111).

The pattern-bands are seldom more than a centimetre in breadth, but there are exceptions. These include a very handsome fragmentary vase from Vourvatsi (Pl. 1. 11), which bears a zone of flowers like those on the shoulder. Another example, said to come 'from the Mesogeia', which I bought in Athens, has decoration so similar that it might almost be by the same hand (Pl. 1. 10). Pattern-bands of this breadth are more frequent on stirrup-jars from Rhodes (*cf.* Wace, *Chamber Tombs*, p. 170, and n. 6-9). But none of the Rhodian examples has this flower-pattern, though something similar occurs on one from Thebes (Δελτ. iii, 191, fig. 136, no. 1).

The floral pattern on the shoulder shows more variety (Fig. 5, nos. 1-6), and may be replaced by other repeated ornaments such as lozenges or circle-and-dot rosettes (Fig. 5, nos. 7-12) or all-over patterns (Fig. 5, nos. 13, 14).

New and distinctive features are a group of concentric circles painted

underneath the base, and a single painted loop encircling the base of false neck and spout (*e.g.*, Porto Raphti road, Pl. 3. 8; Kopreza, Pl. 3. 11; Ligori, Pl. 3. 3).

One stirrup-jar from Brauron is exceptional in being covered all over with smeary red paint (Pl. 3. 2).

It is essential to remember that these changes both in shape and decoration took place gradually, and that not all pots (least of all small pots) have the craftsman's best skill lavished on them. So there are many of intermediate shape or style. Those of shape B may not all show the decorative characteristics of the type, and some that do may be more like type A in shape. A pot can only be classified on consideration of all its features together. From the Acropolis there are at least fifteen that may readily be classed as of type B; from Kopreza there are at least three (Pl. 3. 5, 7, 11), and three from the site on the Porto Raphti road (Pl. 3. 8, 9). Some of the other stirrup-jars from Kopreza, with some from Brauron, Ligori, and Steiria, seem to belong to type B in general style; but they are small and ill made, or otherwise hard to classify (*e.g.*, Steiria, Pl. 3. 4; Kopreza, Pl. 3. 1; the same applies to one from Vourvatsi, Pl. 1. 1; one from Velanideza, Pl. 2. 8, is more definitely type B).

Type C is the latest development of the tendencies seen in type B. Some specimens still have the profile-curve of B, but others are all but spherical; all have a distinct base-ring. The false neck is usually rather narrow, and topped by a very flat and thin disc moulded up to a conical point in the centre. The mouth of the spout is often splayed out so that the lip touches the edge of the disc. There is often in the later examples an airhole pierced in the shoulder beside the handles.

This is the usual and characteristic shape of the very late stirrup-jars from Salamis (*AM* 1910, 17 ff. and pls. V, VI), and from the sub-Mycenaean graves excavated by the German Institute in the Kerameikos. An example found elsewhere in Athens is shown in Pl. 2. 10.

The earlier specimens retain the decorative scheme of type B; they have a few broad stripes on the body, with finer stripes and sometimes one zone of zigzag or some other pattern between (*e.g.*, Ligori, Pl. 3. 3, 10). The shoulder decoration, including the loop embracing spout and false neck, is also little changed (*e.g.*, Ligori, Pl. 3. 3, and Kopreza, Pl. 3. 11).

Later examples, including most of the Salamis and Kerameikos stirrup-jars, have fewer and broader stripes, and often the whole body below the handles is covered with glossy brown-black paint broken only by one reserved band or a zone of fine lines. (For examples from Salamis see *AM* 1910, pls. V, VI; from Kerameikos, Kraiker and Kübler, *Kerameikos* i, pls. 6-11). In this group the handles are commonly painted with horizontal bars.

Shoulder patterns are very casual, but generally have a fairly geometric look. They include groups of semi-circles and cross-hatched triangles (examples in Fig. 7, nos. 1-4). Sometimes such motifs are combined to fill the whole shoulder area (Fig. 7, nos. 6, 7). The shoulder pattern of the Salamis vase shown in *AM* 1910, pl. VI, 3 is unusual. There Wide describes it as a 'stilisierte Blütenkelch'; but perhaps it is a stylised Cephalopod (see Fig. 7, no. 5).

The technique of these late pots is interesting: the clay, tending to a dark

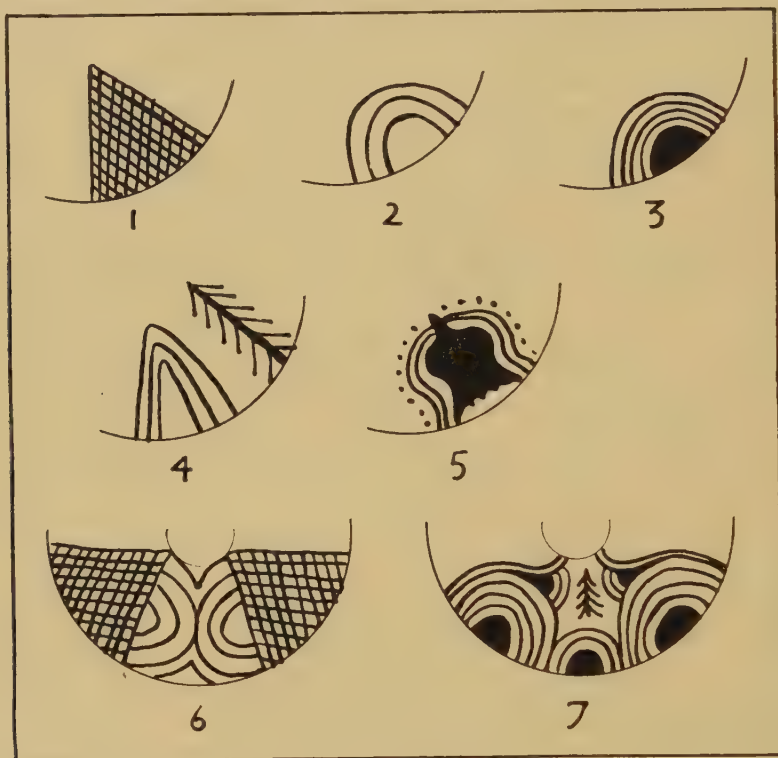


FIG. 7.—SHOULDER-PATTERNS FROM STIRRUP-JARS (SALAMIS CLASS).

and brownish hue, and the paint, a thick brownish black, often with a slightly metallic gloss, already resemble the clay and paint of Protogeometric pottery, while the patterns (particularly shoulder-patterns), though not yet drawn with ruler and compasses, are virtually the same as some Protogeometric patterns. This similarity alone would be sufficient to show the approximate date of type C. There is also a strong resemblance, particularly in the quality of paint and its use to cover the whole body of the pot, to the 'Granary Class' found at Mycenae and dated from its stratification to the end of the L.H. III period.

Some of the pots show a more specific resemblance to the 'Close Style'; and in this connexion special mention must be made of a jar found near the Dipylon gate (published in *AM* 1907, pp. 157, 588 and pl. XXV; *Kerameikos* i, pl. 5). Most of the vase is covered by a badly drawn octopus, while there is a band of zigzag just below the handles, and the shoulder and other remaining spaces are filled with various odd motifs. Jars with similar 'octopus' decoration, dating to the end of L.H. III, have been found not only at Mycenae (e.g., *BSA* xxv, pl. IXb; *FLMV*, pl. XXXVII, 380), but also in Rhodes, Kalymnos, Troy, Pitane in Aiolis, Delphi, Epidauros, and Asine. (A good list, though not complete, is given by T. C. Skeat, *Dorians in Archaeology*, 25.) They exhibit various differences in style, and may therefore reasonably be supposed to have been manufactured in different places, quite apart from considerations of provenience. The clay and paint of the Dipylon example show clearly that it is a local product. It is closely similar in fabric to the sub-Mycenaean pottery from the Kerameikos. There is another stirrup-jar with an 'octopus' design, from Keratea on the east coast of Attica, now in Karlsruhe (F. G. Welter, *Bausteine zur Archäologie*, pl. I, i; mentioned in Skeat's list).

A third 'octopus' stirrup-jar comes from the Porto Raphti road site (Pl. 2. 3 and Fig. 8; cf. Δελτ. xi, παρ., 63, fig. 18). The vase does not resemble the two Attic examples just mentioned, either in fabric or in style of painting. The disc of the false neck is depressed slightly below the handles, and it has no central 'wart'. The clay is of a light buff, and the paint of a good brownish-red. In style the pot resembles Rhodian examples (cf. *CVA Rhodes* ii, II A c, pls. 2, no. 7; 10, nos. 1-4; 11, no. 1; and especially *CVA B.M.* v, pl. 7, no. 16). We may be fairly safe in thinking it an imported piece. There is also one stirrup-jar from Vourvatsi (Pl. 2. 2) which is probably imported. The shape (type J in Fig. 2) is extremely rare in Attica, and generally uncommon on the mainland, though very frequent in Rhodes. (Many examples of it are illustrated in *CVA Copenhagen* ii.) The Vourvatsi pot has an unusually short and broad false neck, and a spout that overtops it; the handles are flattened where they join the neck. The clay is of a pale greenish hue, very like the clay of many Argive Mycenaean pots. The scale



FIG. 8.—STIRRUP-JAR FROM SITE ON PORTO RAPHTI ROAD.

motif on the shoulder is rather unusual for a stirrup-jar, though it frequently occurs on open-mouthed piriform jars.

There is another piriform stirrup-jar—a very large one, 41 cms. high—in Berlin, said to be from Aliki (*FLMV*, pl. XVIII, 130). The provenance ‘Aliki’ must always be a little suspicious; but if the pot was found in Attica it was probably an imported piece. The shoulder ornament is peculiar, but an almost exact parallel occurs on a jar of the same shape in Copenhagen (*CVA Copenhagen* ii, pl. 64. 2). Unfortunately the provenance of this pot is uncertain; it is supposed to be from one of the Cyclades, perhaps Melos.

The only other stirrup-jars to be mentioned are the large types K and L (Fig. 3). They are made of coarse clay, with very little or no painted decoration. One complete specimen of the taller type L has been found in Attica, the famous inscribed jar from Eleusis (see Mylonas in *AJA* 1936, 426). The similar jars from Thebes, Mycenae, and Tiryns are well known, and plain examples have been found at Zygouries and elsewhere. Probably these large store-jars were commoner than finds may suggest. Pots so large are easily broken, and the fragments are rather amorphous, though probable necks and handles can be recognised among the sherds from Menidi and the north slope of the Athenian Acropolis. There are fragments from Tell-el-Amarna also (now in Cambridge), which shews that such jars were in use from an early date in L.H. III. Probably they were not usually considered suitable for funerary purposes; certainly the known examples are mostly from domestic sites.

Note : the use of stirrup-jars.

Stirrup-jars have always a very narrow neck, and so will only pour in a dribble, and may easily be tightly stoppered. (Remains of stoppers have been actually found in a few stirrup-jars; v. *AA* 1935, 73 ff. and figs. 6–9.) Probably they were intended to hold some liquid that was used carefully and sparingly—either oil or unguents. They may be compared in these respects with lekythoi of classical times; and seeing that they are frequent in tombs—much more so than in habitation-sites—there may be an even closer parallel between the two.

The very late stirrup-jars, of the ‘Salamis Class’, are found in the same context as certain small jugs which, though they have only one handle and one neck, are otherwise of the same shape (cf. *AM* 1910, 27, fig. 4, and pl. VI, nos. 2–5). Both types of vessel have a narrow neck, and an airhole to facilitate pouring, and both would be suitable for the same use. These jugs seem to have replaced the stirrup-jar in the post-Mycenaean period, and may perhaps be the prototypes of the classical lekythos. Cf. R. Bosanquet, *Unpublished Objects from Palaikastro* i, 160.

Kylikes. (See Figs. 9, 10 and Pls. 4–7.)

The kylix—a wide, stemmed goblet—is almost as common a Mycenaean type as the stirrup-jar. About 120 examples have been found in Attica, a little more than half of them being from the tombs excavated by Kyparissis

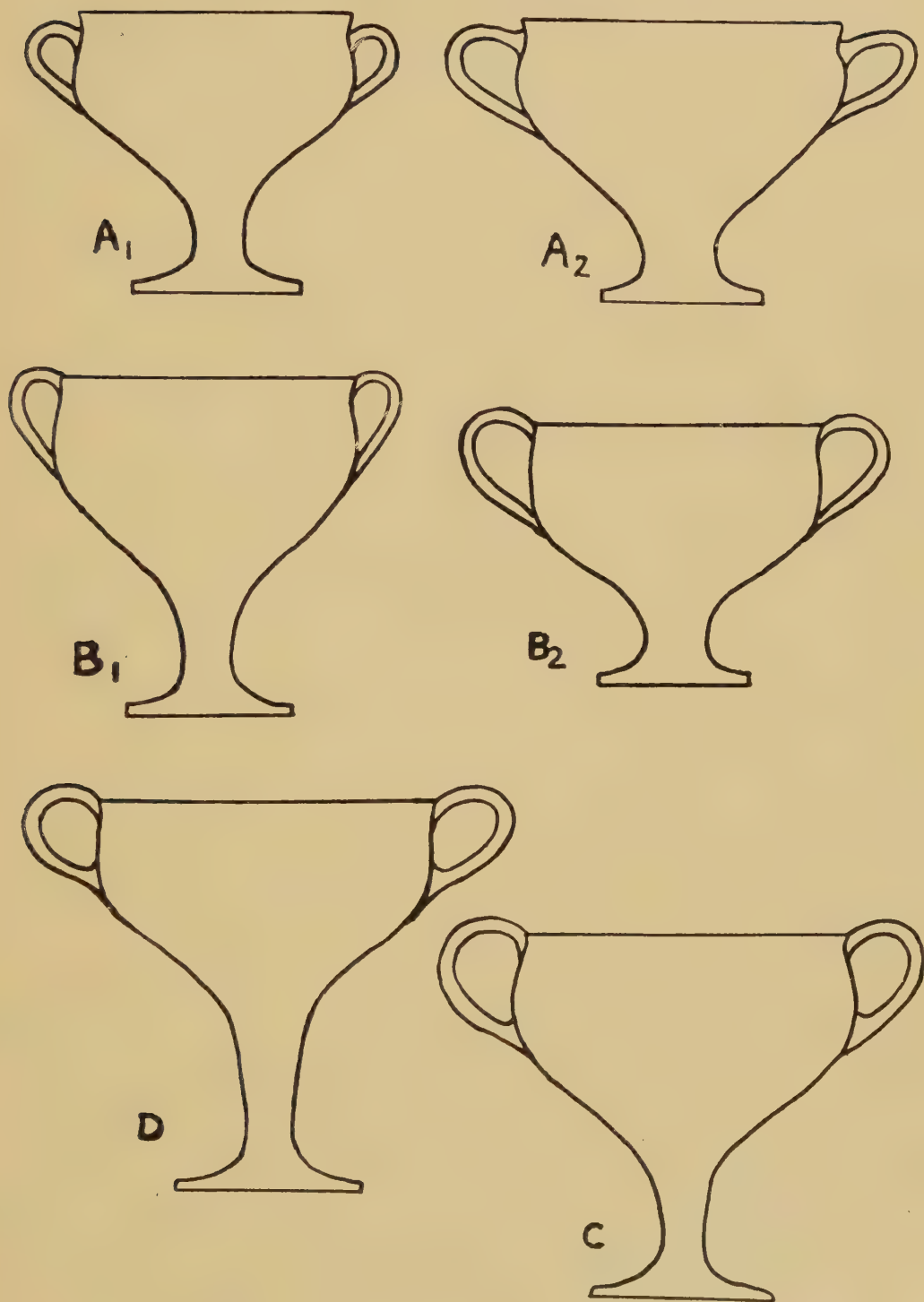


FIG. 9.—KYLIX SHAPES.

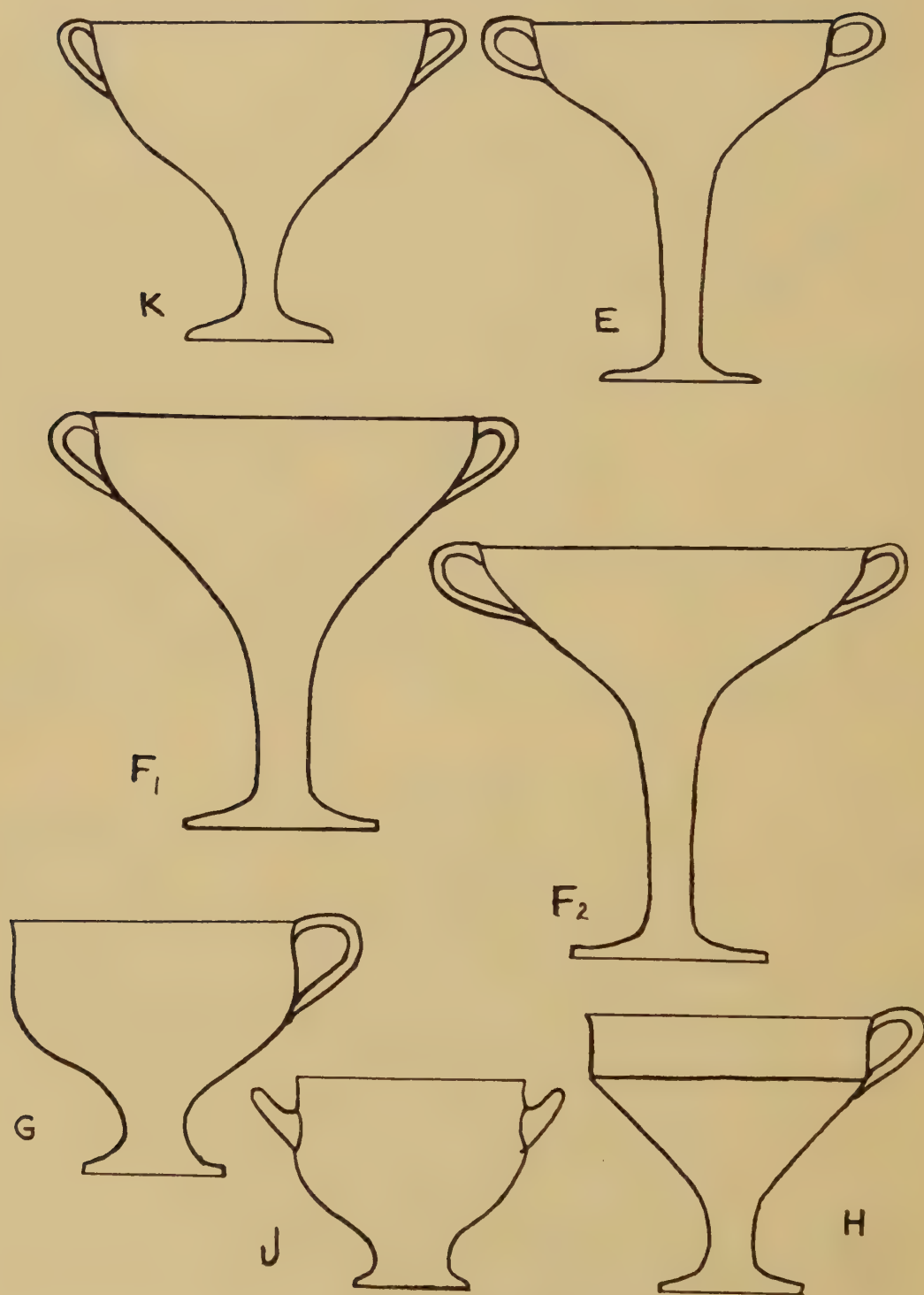


FIG. 10.—KYLIX SHAPES.

at Vourvatsi. They vary considerably in shape and decoration, and we thus have good material for a typological study.

The L.H. III kylix evolved from L.H. II prototypes, and in the Argolid the evolution can be traced fairly continuously. From Attica, however, there is scarcely a single example to illustrate the transition. The shape seems to belong to Mainland Greece, where it may indeed be traced back to M.H. 'Minyan' goblets. Kylikes are rare in Crete, and none seems to date before L.M. Ib, when they may have been introduced from Greece. The L.H. II kylix clearly owed its shape to metal types (cf. Evans, *P. of M.* iv, 359 ff.); it had a deep, broad bowl with a marked flanged lip, and stood on a splayed foot. Vertical ribbon handles were attached at the rim. This, with painted decoration of a single flower or other motif on one side of the bowl, is the type called 'Ephyraean'. The distinctive features of the more familiar L.H. III types, however, are a shallow bowl and a much longer stem, giving the well-known 'champagne-glass' appearance (*e.g.*, types D, E, F). These, however, do not belong to the earliest phases of L.H. III. They are preceded by types showing a closer affinity, at least in shape, with L.H. II kylikes.

Types A and B (Fig. 9) both belong to the early part of L.H. III, and of these type A is most readily distinguished by its handles, which are attached not at the rim, but lower on the bowl, which is still fairly deep and broad. The variety A2 is more squat, and has a thicker and shorter stem. From Vourvatsi there are four complete examples of the tall variety (*e.g.*, Pl. 4. 3, 6) and three of the short (*e.g.*, Pl. 4. 1, 2), besides fragments, and from Trakhones two more tall ones (Athens N.M., 5 and 16).

Two of the tall examples from Vourvatsi, and all three of the short ones, are of a pinkish-buff clay with a very fine, smooth finish, wholly unpainted. The others are painted all over, both inside and out, with a thick coat of bright red paint. It seems likely from the metallic form, particularly of the lip, that all are conscious imitations of metal cups, and not less so the painted ones. We may compare the clay kantharoi of later centuries, coated with black paint to imitate bronze. In the two painted examples from Vourvatsi (one in Pl. 4. 6) the foot is moulded hollow (see Fig. 12*b*) instead of having a mere turned countersinking (as Fig. 12*a*). This is a clear copy of the foot of a metal cup, which naturally would not be made solid.

Type B, which also has tall-stemmed and short-stemmed varieties, is similar to type A, but usually has ribbon handles, attached at the rim. It is a more common type than A. Of the short variety there are twelve and some fragments from Vourvatsi (*e.g.*, Pl. 4. 5 and 5. 15), besides single specimens from Pikermi (Pl. 7. 3), Velanideza (Pl. 6. 5), the Porto Rapti road (Pl. 6. 10), Kopreza (Pl. 6. 4) and 'Alikí'. Of the tall variety there are seven or so from

Vourvatsi (*e.g.*, Pl. 4. 4), two from Pikermi (*e.g.*, Pl. 7. 4). The ribbon handles and the lip suggest imitation of metal work, and, except for three of the tall specimens from Vourvatsi, all these are painted both inside and out. The colour of the paint varies, according to conditions of firing, from bright red to black; sometimes there are patches of both on the same vase. At its best the paint is thick, even and glossy; but not infrequently it is streaky and dull and rubs off easily. (It is not always possible to tell how far this may be due to inferior craftsmanship and how far to the action of the soil.) There is a good deal of variety in size. The tall type is generally about 17 cms. high; but the squat type is often of smaller dimensions all round, and only 10 or 11 cms. in height (*e.g.*, from Kopreza, Pl. 6. 4; Velanideza, Pl. 6. 5; Vourvatsi, Pl. 5. 15; Porto Raphti road Pl. 6. 10).

Both these types, A and B, are uncommon in tombs elsewhere than in Attica. Of type A, I can only find record of one from the Argive Heraeum tombs (*Prosymna*, fig. 127, no. 259) and two from Rhodes (*CVA*, *B.M.* v, pl. 5, nos. 1, 5). Type B is less rare; there are at least four examples from Rhodes (*CVA Copenhagen* ii, pl. 53, nos. 9-12), one from Mycenae (*Chamber Tombs*, pl. LVII, no. 11) and three from the Argive Heraeum (*Prosymna*, fig. 255, no. 656; fig. 329, no. 735; fig. 557, no. 975). The three *Prosymna* examples are all small. Evidence from tombs, however, is here shown to be misleading: the discovery during the 1939 Mycenae excavations of thousands of sherds of kylikes of this sort in a rubbish-pit, the contents of which are all clearly of an early phase of the L.H. III period, shows that such kylikes were common enough in the Argolid as well as in Attica.

Type C is similar in its general proportions to type B, and may well be to some extent contemporary with it, since there is at least one kylix from Vourvatsi which in shape belongs to type B and in decoration to type C. But generally C has fewer metallic features than A and B. The handles are round in section, and their lower ends are not stuck flat against the bowl, but grow out of it like a branch from a tree-trunk (see Fig. 9). Moreover, the kylix bears patterned decoration. The usual scheme is that the stem and foot are painted with a series of fairly wide horizontal bands, while the bowl bears some more elaborate pattern, generally in a zone marked off by a group of narrow stripes running round just below the handles. This zone is filled with some repeated motif. About seven of the kylikes from Vourvatsi may be classed as of type C, and all are decorated with abstract motifs in this 'zonal' arrangement, (*e.g.*, Pl. 4. 9, 11; also nos. 237, 238, illustrated in Δελτ. xi, παρ., fig. 25, bottom row). One in Berlin from 'Aliki' has a repeated floral ornament (*FLMV*, pl. XVIII, 122) and may therefore be one of the earliest of this shape. A later phase in the evolution of pattern is shown by one from

Ligori (Athens N.M. 3829) and one from 'Vari' (Athens N.M. 29), which have the very simplest of decoration. The motifs used are shown in Fig. 15, nos. 1, 2.

There is one example of a by-form of type C, from 'Aliki' (Athens N.M. 3, *FLMV*, pl. XIX, 138). It has two high-swung handles but otherwise does not differ substantially from the regular type C. It is of somewhat inferior fabric.

Type D is a development from C. Some kylikes seem intermediate between the two, but in D the bowl is generally shallower, and the stem longer. Metallic features have completely disappeared, and the rim is not flanged or moulded. This is the commonest sort of Mycenaean kylix in Attica, and seems to belong roughly to the middle of the L.H. III period. The decorative scheme is much the same as in type C, various motifs being used in the pattern-zone on the bowl.

On one kylix from Pikermi (Pl. 7. 6) it is the murex, laid sideways; on one from Vourvatsi (Pl. 4. 8) it is alternately a floral ornament and a murex shell; Vourvatsi no. 64 (Pl. 5. 1) fills either side of the bowl with a beautiful grouped floral design; but often there is simply a repeated abstract motif (*e.g.*, from Velanideza, Pl. 6. 9; Vourvatsi, Pl. 4. 7, 10, 12). The pattern on the second of these is notable as a derivative of a well-known L.H. I-II linked-spiral pattern. Other kylikes of type D, however, have what may conveniently be termed a 'radial' pattern scheme. The whole of the bowl is used as a field for some ornament running vertically from the lip to the base of the bowl and repeated several times. The ornament used is commonly the stylised murex-shell, as on two kylikes from Kopreza (Pl. 6. 1, 2). Another 'radial' pattern is seen on Vourvatsi no. 61 (Pl. 4. 14); it is probably floral, though it may be a 'degenerate octopus'. An example from Vari has the murex and a floral pattern together (Pl. 6. 12). Such patterns are very near in style to those of the 'Zygouries' kylikes (type E, below). The decoration of Vourvatsi no. 62 (Pl. 4. 15) and Pikermi no. 31 (Pl. 7. 5) is notable; it is an untidy representation of some Cephalopod, with details picked out in white applied on top of the usual red or black paint. Another kylix of the same type, from Vari, is in the British Museum (*CVA B.M.* v, pl. 10, no. 25). Nine similar kylikes are known from Rhodes and several from elsewhere (*cf.* p. 12 above).

Type E (Fig. 10) is in its decoration reminiscent of the 'Ephyraean' goblets. This type was found in very large numbers in the Potter's Shop at Zygouries—it has, in fact, been named the 'Zygouries' type. As it is fully described by Blegen (*Zygouries*, 143 ff.), it needs no longer mention here. It is nowhere common (except in the Potter's Shop), and I have come across

only three examples from Attica—two in the Empedokles collection and one bought by me in Athens (Pl. 6. 11). Since none of these comes from a proper excavation, their provenance cannot rest unquestioned. They are closely similar to the Zygouries examples in shape, size, and decoration, but



FIG. 11.—SHERD OF "ZYGOURIES"
KYLIX FROM ACROPOLIS.



FIG. 12.—KYLIX-BASES.



FIG. 13.—SHALLOW CUP SHAPES.

not in fabric. There is a sherd from the Acropolis (Fig. 11) which seems to come from a kylix of this kind.

Closely related in shape to E is type F, of which two varieties are illustrated in Fig. 10, to show the sort of differences that occur in the proportions of bowl and stem. There are at least fourteen examples from Vourvatsi; some are illustrated on Pl. 5, and it will be seen that some are intermediate in shape between F1 and F2. They vary in size, but most are in the neighbourhood of

either 15 or 20 cms. high. There seems to be conscious imitation of a metal type; all have a neat moulded rim, and the method of attaching the lower end of the handles is in a metallic technique. (It is interesting to note that in the 'Zygouries' type, which has some painted decoration, and is therefore presumably not intended to reproduce a metallic type, the handles are not attached thus, but as in type D.) There is usually a turned counter-sinking in the base (*v.* Fig. 12*a*). The biscuit is good and hard, generally of a rather ruddy buff colour, and wholly unpainted. On the whole this tall variety of kylix does not seem common in Attica. Some of the Menidi sherds may be from similar vases; but the only other complete specimens I have observed are one from Pikermi (Pl. 7. 2) and one from 'Alikí' (in Athens). The type is not common in the Argolid; it occurs once or twice among the pottery from the Argive Heraeum tombs (*Prosymna*, fig. 126, no. 265; fig. 125, no. 271), but generally the Argive tall-stemmed kylix has a more hemispherical bowl, and high-swung handles are the rule (*e.g.*, *Prosymna*, fig. 425, no. 104; fig. 297, no. 712).

Type K also is related to metal originals, and shows a distinct similarity in shape to several gold kylikes found among the Acropolis treasure at Mycenae (published by Miss H. Thomas in *BSA* xxxix, 65 ff.). There are few examples of this type from Attica. It occurs at Velanideza (Pl. 6. 8) and similar kylikes, though with a straighter profile, have been found on the Acropolis (*e.g.*, *Hesperia* ii, 371, fig. 44*a*). It is much commoner in the Argolid, and a large stock was found in the Potter's Shop at Zygouries (Blegen, *Zygouries*, 151, figs. 141, 142). Perhaps the Velanideza specimen was imported, though there is nothing conclusively un-Attic in the clay.

The one-handled kylix of type G occurs only rarely. One from Velanideza (Pl. 6. 6) is covered all over with red paint, a fashion that perhaps relates it in date with type B. Two others, one from Pikermi (Pl. 7. 8) and one from 'Alikí', now in Berlin (*FLMV*, pl. XVIII, no. 125), are coated with a white slip on the outside; the inside, the foot, and the lip are painted in red. I do not know of any real parallels to these two cups. Two other unpainted one-handled kylikes from Pikermi differ slightly from this type in having a rather more conical bowl.

Type H is distinctive in having a definitely angular profile. It is regularly of small dimensions (height about 11 cms.). It occurs at nearly all the Attic sites: *e.g.*, Vourvatsi, Pl. 5. 10-12; Pikermi, Pl. 7. 9. The first of these is of a peculiar greenish clay, and might well be an import from the Argolid or Corinthia. It is hard to establish a date for this type; at H. Kosmas it is the only type of kylix that occurs, and is associated with stirrup-jars of type B. In the Zygouries Potter's Shop there were far fewer kylikes

of this than of other types. Perhaps it had not yet gained much popularity. Most probably it belongs entirely to the second half of L.H. III. Certainly it continued in fashion to a fairly late date. Examples have been found (*e.g.*, at Berbati, and Palaiookhori in Kynouria) which are covered all over with dark brown paint of a late appearance. Pl. 6. 7, from Velanideza, may also have been painted. The shape is derived from much earlier types in metal (*e.g.*, the electrum cup from Shaft Grave IV at Mycenae, Karo, *Schachtgräber*, pl. CXII). One unusual kylix from Kopreza (Pl. 6. 3) is more or less of the same profile as type H, though rather less angular, but has two handles, rising above the level of the rim.

There are a few kylikes which have loop handles attached horizontally (type J). Apart from the handles, they are somewhat similar in shape to type B₂ and there are two examples from Vourvatsi (one, Pl. 5. 14) which are coated with red/black paint like those of type B. Two others (from Vourvatsi, Pl. 4. 13, and Kopreza, Pl. 7. 1) have patterned decoration. The Vourvatsi example is of a brownish clay, and bears stripes of dull red paint on the foot and lip and just below the handles, besides one inside the bowl. The upper part of the bowl is decorated with broad loops pendent from the rim. The Kopreza piece is of similar fabric; it has the same arrangement of stripes, and linked spirals painted on the bowl. Examples with patterned bowls are known also from Mycenae (*FLMV*, pl. XXX, 276; pl. XXXII, 306). These are of larger size—about 15 cms. high.

Another variety is represented by one cup from Pikermi (Pl. 7. 7) and one from Vourvatsi (Pl. 5. 2). Both have stripes on the foot and stem, on the lip, and below the handles. The only other decoration on the Vourvatsi one is a row of small loops attached to the lip-stripe and another stripe inside the bowl. The Pikermi one had a simple repeated linear pattern round the bowl. The decoration of these few kylikes, and the quality of their clay and paint, indicate a date well into the second half of the L.H. III period; in fact, this seems to be the latest of the kylix-types. (Cf. below, p. 37, on the transition from kylix to cup.)

Cups. (See Figs. 13, 14, Pls. 8, 9).

Shallow Cups.

A common pottery-shape in the L.H. I and L.H. II periods is a shallow cup or phiale. There are two varieties: one with a flat rim and a ring-like ribbon handle attached to it (*e.g.*, *Chamber Tombs*, pl. I, no. 40); the other with



FIG. 14.—DEEP CUP SHAPES.

a more normal lip and a cup-handle which does not rise above the rim (*e.g.*, *ibid.*, no. 1). In the Argolid, shallow cups of both these sorts occur quite commonly in L.H. III as well; but in Attica they are rare. The first of the two varieties is represented by scarcely a single example. Of the second variety there are two examples from Vourvatsi, one from Kopreza, and one from Pikermi. In these the handle does not rise above the rim (see Fig. 13 A) except in the Pikermi example. The two from Vourvatsi (Pl. 8. 1, 2) seem to belong to the beginning of L.H. III, for the stippling on one and the pattern on the other are both in the L.H. II tradition. The one from Kopreza (Pl. 8. 3) must be later; the floral design on the inside, better in conception than execution, has little to do with L.H. II patterns. Another variety of the shape (Fig. 13 B) has a high-swung handle, and a small spout to one side. This is another type which is common in the Argolid but extremely rare in Attica, only two examples being known. These are both from Kopreza, and similar in decoration (one, Pl. 8. 11). One of them is particularly large—23 cms. in diameter. Perhaps it had some ceremonial use. From Pikermi comes an example with a type of handle intermediate between those of A and B (Pl. 8. 8).

All these shallow cups would be suitable, like the classical phiale, for pouring libations. The type with a flat rim and ring-handle clearly imitates metal originals, and it is known that such vessels were also made in gold or silver, a fact which suits the idea of their use for a ritual purpose.

In Attic tombs their place seems to have been sometimes taken by a simpler, more domestic-looking ladle (Fig. 13 C). Six such ladles were found in the Vourvatsi cemetery, four painted and two plain (*e.g.*, Pl. 8. 4, 5). A painted example from 'Alikí' is in the Berlin Museum (*FLMV*, pl. XVIII, no. 132). Fragments of a plain one are among the Menidi sherds. These are all from tombs; but several examples have been discovered in the excavations on the North slope of the Athenian Acropolis; several more, all unpainted, turned up at H. Kosmas, also a habitation site; and there is one in the Eleusis Museum (Προϊστ. Ἐλευσίς, fig. 114, no. 395). From the Argolid there are scarcely any from tombs, though there were plenty among the stock of the Zygouries Potter's Shop, which apparently included only domestic utensils. The numbers are too small to justify conclusions based on frequency of occurrence; but it seems likely that this type of ladle was primarily a piece of ordinary household crockery.

Deep Cups.

Two cup-types, both of them somewhat rare, seem to be copies of metal vessels. The first of these (Fig. 14 A) is a bell-shaped cup like a well-propor-

tioned modern teacup. The concave profile and the ribbon handle both seem reminiscent of metal prototypes, and readily remind one of some of the gold cups from Shaft Grave IV at Mycenae (*Schachtgräber*, pls. CVIII, 442 and CX, 313).

In pottery the shape is not very common; there are two Attic examples, one from Pikermi (Pl. 8. 7) and one from Kopreza (Pl. 8. 6). The Pikermi one is of rather poor fabric and has simple linear decoration. That from Kopreza is coated all over with red paint, which supports the view that it is an imitation of metalwork.

The other 'metallic' type, often referred to as a 'mug', is perhaps better described as a 'tankard' (Fig. 14 B). One small example of this shape from Vourvatsi (Pl. 8. 10) is stippled on the outside in the L.H. II manner. Another from Brauron (Pl. 8. 9) was painted all over in smeary reddish-brown. Neither of these is more than about 8 cms. high, but other examples are much larger, up to 20 cms. in height, with a capacity of a litre or more. Of two such from Vourvatsi, one (Pl. 8. 12) is fragmentary; it is of greenish clay and was decorated with hooked spirals. The other (Pl. 8. 13) is perfectly preserved; it is painted with a fine floral pattern, and is altogether one of the most handsome Mycenaean pots from Attica.

Tankards of this large, tall variety are rather rare on the mainland, though commoner in the Eastern Aegean.

One hesitates whether to class type C (Fig. 14) as a 'cup' or a 'bowl'. Not that the actual name is material; but the size of some specimens and the horizontal loop handle seem to relate them to the two-handled bowls described later (p. 39 below). Most examples, however, are decorated in the manner of other cup-types, which makes it convenient to discuss them here. Fourteen examples of this shape were found at Vourvatsi (*e.g.*, Pl. 9. 1, 2, 3, 5, 7, 8) three at Kopreza (Pl. 9. 13, 14) and one at Trakhones (Collignon-Couve, pl. VI, no. 100). The shape is extremely rare in the Peloponnese; in fact I have only come across two—one from Tiryns (Schliemann, *Tiryns*, fig. 50) and one from Mycenae (Athens N.M. 3174). From Rhodes examples are more frequent (a number are illustrated in *CVA Copenhagen* ii, pl. 54, nos. 13-16 and pl. 55, no. 1). There is one from Cyprus in the British Museum (*CVA B.M.* i, pl. 12, no. 19).

Type D (Fig. 14) is represented by two examples only. One is from the Athenian Acropolis (Graef, no. 181, pl. 5), the other from Kopreza (Athens, N.M. 3805). The commoner type E is not so deep, and in most cases has an additional miniature handle on either side of the bowl (Fig. 14 and Pl. 9. 9-12). These extra handles are for ornament, not use, and their place is sometimes taken by small raised knobs. Two examples from Brauron (Athens N.M. 3855, 3856) show a slight variation from this type, in having a

rather more widely splayed profile (Fig. 14 E2). One, with ornamental knobs, has painted decoration; the other is plain and has no knobs.

Knobs of a similar sort are found on jugs of the 'Close Style' at Mycenae (*e.g.*, *FLMV*, pl. XXXVII, nos. 379, 382) and on one jug from the Salamis graves (*AM* 1910, pl. VI, no. 7). It is thus a late fashion, and though it may, of course, have begun earlier than the period of the 'Close Style', the decoration of these cup-types seems to agree with a date well on in the second half of L.H. III. There is generally a painted stripe round the lip, one or two round the foot, and a group of two or three narrower stripes level with the base of the handle. A zone on the bowl is thus marked off which is occupied by a repeated linear pattern (examples in Fig. 15). These patterns are not new; they had already been used as filling ornaments (on the sides of pilgrim-bottles for example) on L.H. III pottery of the Tell-el-Amarna period (*cf.*

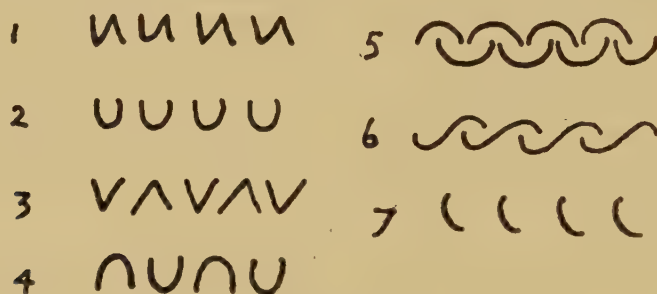


FIG. 15.—PATTERNS FROM CUPS.

Petrie, *Tell-el-Amarna*, pls. XXIX, 99, 109; XXX, 128, 136, 137); but their use as the chief decorative motif on a pot is characteristic of a late stage of L.H. III. The designs are few; a half-sheet of notepaper would suffice for a complete pattern book (*cf.* Fig. 15). The commonest are quirks (*e.g.*, Pl. 9. 5, 7, from Vourvatsi), hooks (*e.g.*, Pl. 9. 9, from Ligori; Pl. 9. 14, from Kopreza) or vertical dashes (*e.g.*, Pl. 9. 3, from Vourvatsi). One cup of type C from Kopreza (Pl. 9. 13) has a pattern of concentric semi-circles, and one of type E from Vourvatsi (Pl. 9. 11) has groups of oblique wavy lines; but there is nothing more imaginative than these, except for one cup of type C from Trakhones which is decorated with the murex pattern (Collignon-Couve, pl. VII, no. 101). Some of the cups are left unpainted (*e.g.*, of type E, Pl. 9. 10, 12; of type C, Pl. 9. 8). One of type C is covered all over with thick red paint (Pl. 9. 2). These unpatterned examples (all from Vourvatsi) may be intended as deliberate imitations of metal cups. It is at least noticeable in this connexion that the two of type C just mentioned have a different type of lip and the red-painted one is of a distinctively shallower shape.

There seems insufficient variation in either the fabric—the clay and paint are seldom of the brilliance of early L.H. III—or the decoration of these cup-types (C, D, E) to justify a chronological arrangement of them. It is possible, and seems probable, that they replaced the earlier kylix as drinking-vessels. This is supported by the decorative patterns, which can be fairly closely paralleled on later kylikes (*e.g.*, Pl. 5. 2, 3). Type C may well have come first; we have already seen a kylix-type with two horizontal loop handles (Fig. 10 J), and one of this type from Vourvatsi with only one handle (Pl. 5. 13) may reasonably be regarded as transitional to the one-handled cup now under discussion. We can then place the deep-bowled type D next, and after that type E, whose plastic knobs, as remarked above, link it with the period of the Mycenae 'Close Style'. But we must not suppose a deliberate development. All these types must overlap.

Type F is a cup with a small bridged spout to one side. The shape is not unlike that of types D or E, but generally the bowl is somewhat constricted below the lip. There are three examples from Vourvatsi (*e.g.*, Pl. 9. 4, 6); they are decorated in much the same manner as the other cup-types, C, D, and E. From H. Kosmas comes a single specimen which, though much defaced, appears to have been coated all over with red paint. The cup illustrated in Προϊστ. Ἑλευσίς, fig. 112, no. 393 is also of this type, though the handle is missing.

G is a sub-Mycenaean type that occurs among the pottery from Salamis (*cf.* *AM* 1910, 28, figs. 7, 8) and among the Kerameikos grave-finds. The profile and the very marked base foreshadow Protogeometric forms; but on the other hand it is clearly a derivative of the Mycenaean shapes described above.

H is a shape that seems peculiar to Athens. It is virtually a kylix of type H cut off at the base of the bowl. It is recorded by Pelekidis among the Acropolis pottery (Δελτ. i, παρ., 37, fig. 6, no. 2), and has also been found by the American excavators on the north slope of the Acropolis. It is not recorded from any other sites.

Kraters and Bowls. (See Fig. 16 and Pl. 10.)

The tall type of Mycenaean krater (Fig. 16 A) is another pottery type which was made after the pattern of metal vessels as a cheap substitute for them. The decoration, however, bears no close relation to metal-work. There is usually a group of stripes round the foot of the pot and another just below the handles. The lip and the handles are painted also. Patterned decoration is confined to the top half of the pot. Three fairly complete kraters of this sort have been found in Attica. One, from Kopreza, is remarkable in having a

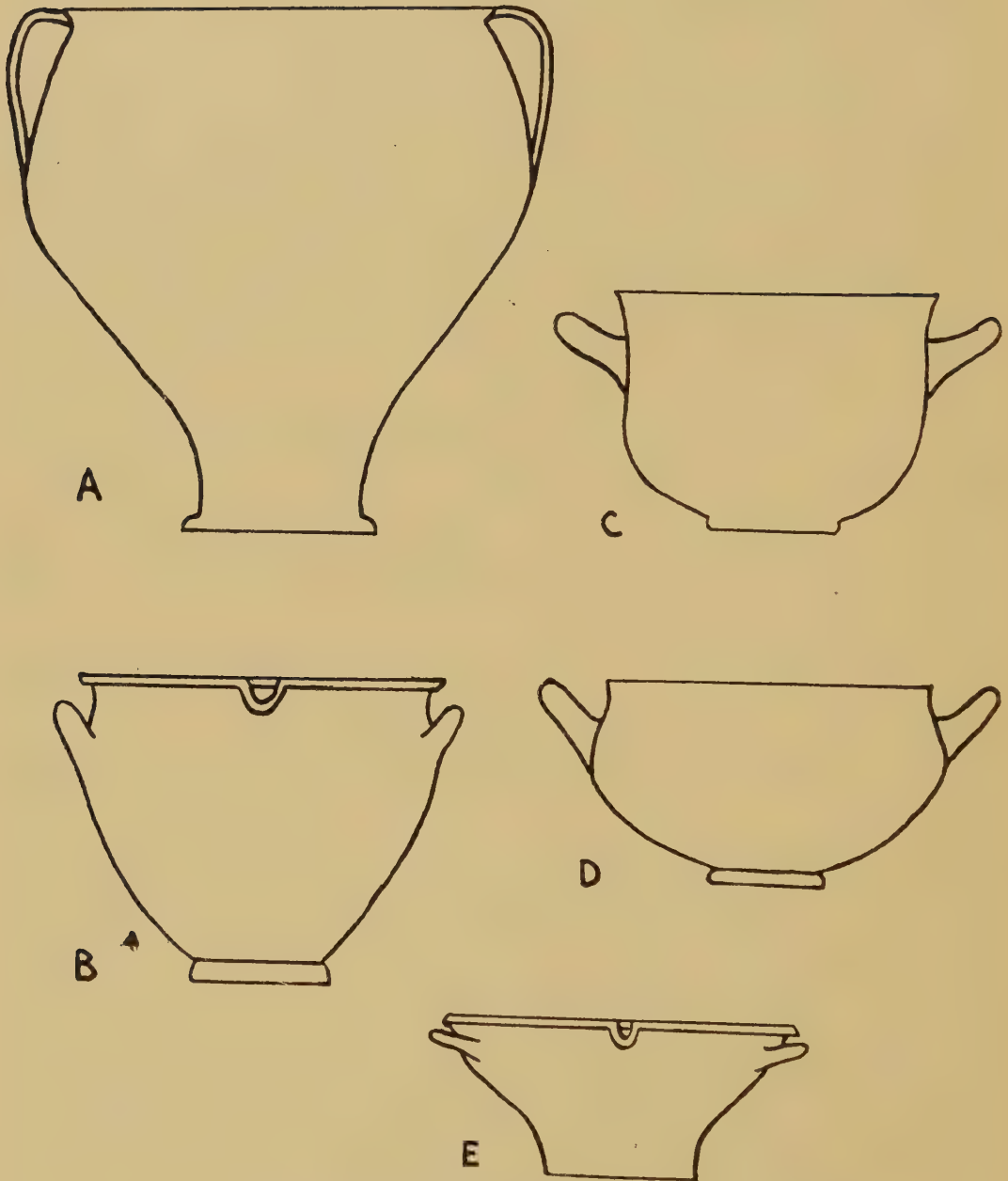


FIG. 16.—KRATER AND BOWL SHAPES.

figure-scene painted on one side of the bowl; on the other side is a conventional floral pattern ('Εφ. Ἀρχ. 1895, 215, pl. 10, nos. 9, 9a). The second, from Vourvatsi, is decorated with a variety of a common Mycenaean flower-pattern (Pl. 10. 1). The third, from Eleusis, is too much defaced for the pattern to be traceable. This is a very breakable shape of pot, which is no doubt one reason why so few are preserved. Sherds from such kraters have been found at a number of sites, including the Acropolis, Menidi, Spata, Velanideza, and the Marathon tholos. (One of the Spata sherds is illustrated in *FLMV*, pl. XVII, no. 117.)

Type B probably belongs to a later stage of the L.H. III period; it is the shape of the Warrior Vase (though that has handles of an individual pattern). Its proportions are broader and shorter and its profile a simple curve, not a double one. The handles are set horizontally, and are of the 'loop' type proper to pottery. There is sometimes a spout. This type occurs among the pottery from the north slope of the Acropolis. Two fairly complete specimens are decorated with stripes and a single wavy band round the bowl (*Hesperia* ii, 369, fig. 42). A large krater from Vourvatsi (Pl. 10. 2) is a variety of this type. Unusual features are that it stands on three short feet, and has a small additional strap-handle attached just below the rim on the side opposite the spout. The decoration is simple and unimaginative.

The most familiar kind of Mycenaean bowl is type C of Fig. 16. Generally speaking, it is not common in Mycenaean graves—which may be partly because it was a vessel not considered appropriate as grave furniture (cf. Blegen, *Prosymna*, 450), but perhaps largely because it belongs mainly to the latter end of L.H. III, and most Mycenaean cemeteries are of earlier date. (The date of these bowls is roughly determined by their occurrence in late strata at habitation sites, especially at Mycenae, and on grounds of fabric and decoration.) The shape is very frequent in the 'Granary Class' at Mycenae (v. *BSA* xxv, 40), and continues in a modified form even into the Geometric period. Finds of such bowls in Attica include:

- 5 from Kopreza (Athens N.M. 3734, 3735, 3737-9; two illustrated in pl. 10. 10, 11);
- 2 from Vourvatsi (Pl. 10. 4, 5);
- 2 from Velanideza (one, Pl. 10. 7);
- 1 from Spata (Athens N.M. 2216);
- 1 from Pikermi (Pl. 10. 6).

These are from graves; but from the Acropolis (a habitation site) there are fragments of hundreds. Probably there would be plenty of fairly complete examples from this site, if the unpainted parts of them had not been so ruthlessly

thrown away by early excavators. The American excavators have been able to restore quite a number from their finds on the north slope of the Acropolis (cf. *Hesperia* ii, 368 and fig. 41).

Patterned decoration on these bowls is confined to the space enclosed between a narrow stripe along the lip and another running round just below the handles. There may be another stripe around the foot, and there are usually dabs of paint on the handles. Patterns at first include a much-stylised murex-shell and a disintegrated Cephalopod (e.g. Pl. 10. 4, 5, 10, 11; other examples in Fig. 17, nos. 1-3, and Graef, pl. 6, no. 124). These patterns are already almost geometric, and the 'octopus' becomes completely so by the removal of the 'tentacles'. Thus it is assimilated to the 'panel' or 'metope' style, in which the bowl is divided into a series of rectangular spaces by vertical bands of patterns (e.g., Pl. 10. 6; other examples, from Acropolis sherds, in Fig. 17, nos. 4-8, and Graef, pl. 4, nos. 125, 129a, 131, 132; pl. 5, nos. 145, 185, 190). Later examples (e.g., those illustrated in *Hesperia* ii, 369, fig. 41) omit these patterns entirely; they have simply a narrow stripe of paint round the lip (sometimes also another below the handles) and are entirely covered with paint inside. These are probably contemporary with the bowls of the 'Granary class' which are painted both inside and out.

Type D is a somewhat shallower bowl than C; it tapers more rapidly below the handles, and the sides of it curve slightly inwards a little below the lip (Fig. 16D). There is one example from Ligori and one from Vourvatsi (Pl. 10. 3, 8). The space between the handles is filled with a single wavy band, as on certain kraters from the Acropolis (*Hesperia* ii, 369, fig. 42). Bowls of an almost exactly similar shape were in use in the Geometric period (e.g., Payne, *Protokorinthische Vasenmalerei*, pl. 1. 3).

Type E is a wide-mouthed bowl with an ogival profile. Bowls of this shape are not numerous, but they exhibit several variations in detail. Two miniature examples from Vourvatsi (height about 7 cms., one illustrated in Pl. 10. 13) and one from Aliki (*FLMV*, pl. XVIII, 128, in Berlin) have a moulded rim and loop handles. One from the Acropolis, however (*Hesperia* ii, 370, fig. 43c), and another from Aliki (also in Berlin), have strap handles attached at the rim, which is plain. These are all quite simply decorated with stripes. There are also four larger examples, none of which has a spout. One is from Menidi (*FLMV*, pl. XXI, 151); it has a simple linear pattern on the upper part of the bowl. Another, from the Porto Rapti road (Pl. 10. 12), has the profile of the upper half much straighter. This suggests that it is later in date than the others; a similar form is found among the 'Granary class' at Mycenae (cf. *BSA* xxv, pl. XI h, l) and at Zygouries (*Zygouries*, fig. 148).

The decoration, too, is of a late fashion; stripes are painted round the inside as well as the outside of the bowl. The other two large bowls of this shape are remarkable for their handles, which are fashioned after a metal pattern, with

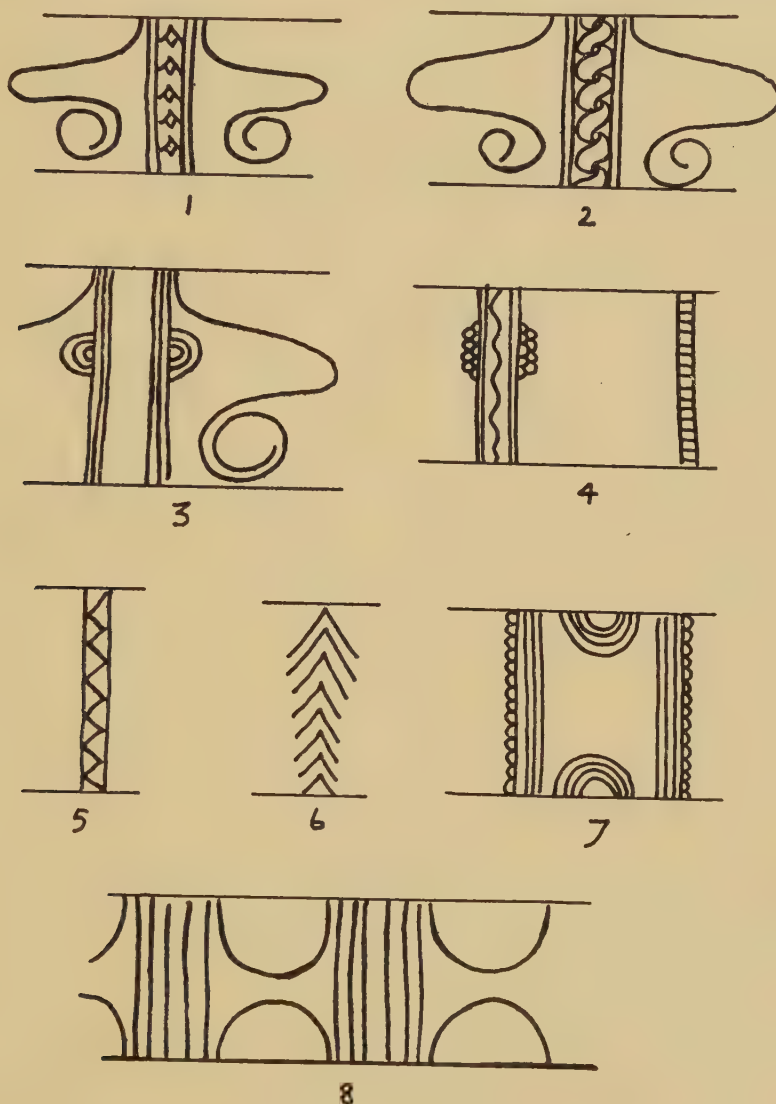


FIG. 17.—PATTERNS FROM BOWLS.

knobbed vertical projections. One is from Kopreza (Pl. 10. 9), the other from Thorikos. (For an Argive parallel see *Prosymna*, fig. 473, no. 917.) H. Kenner, in an article on 'Das Luterion im Kult' (*ÖJh* 1935), suggests that these bowls when found in tombs have some ritual purpose or significance.

The idea is supported by the recurrence in Rhodes of similar bowls with plastic figurines on the rim (*e.g.*, *B.M. Cat.* A950). This might account for the miniature examples, which would be cheap and symbolic substitutes for normal-sized bowls.

Two other vessels may be mentioned here, both apparently unique in form. One is a wide and deep bowl from Pikermi with two broad horizontal ribbon handles. It is coated all over with red paint. Probably it is a type of bowl that was usually only manufactured in metal (Pl. 10. 14).

The other is a broad shallow dish with vertical sides, found at Vourvatsi (Pl. 11. 1). It stands on a ring-base of about a third of the diameter of the

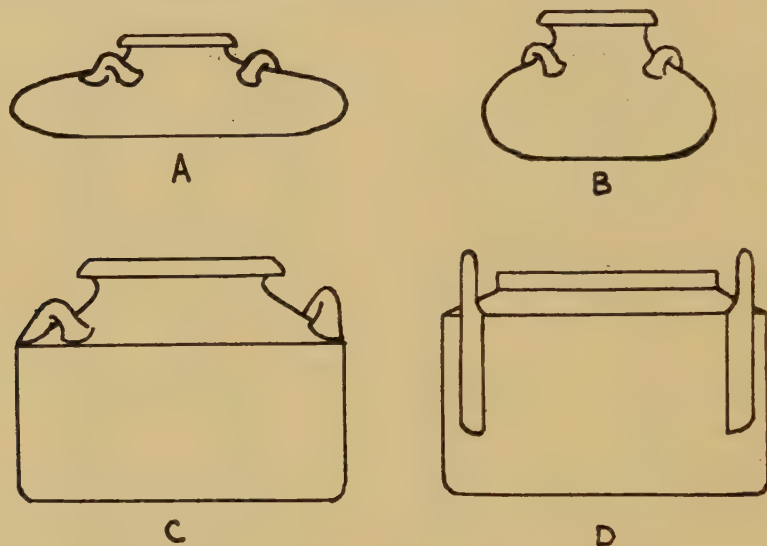


FIG. 18.—ALABASTRON AND PYXIS SHAPES.

whole dish. The decoration consists entirely of stripes, inside as well as out. Also deserving of mention is a small, unpainted, shallow dish from Markopoulo. The type is very common in the Argolid; there were large numbers in the Argive Heraeum tombs; but this is the only one found in Attica. (For shape see *Prosymna*, fig. 280.)

Alabastron: *Pyxis*. (See Fig. 18 and Pl. 11.)

One of the most characteristic pot-shapes of the L.H. II period is the flat 'alabastron'. Two varieties may be distinguished, one very flat and spreading, the other compact (Fig. 18, A, B). The former variety is rare in the L.H. III period, and what examples occur seem to be fairly late. Such is one from the beehive-tomb at Marathon; it was of a very flat shape, and of extremely thick and coarse fabric, quite unpainted.

The second variety is a little commoner; there are about eight examples from Attic sites, including two from 'Aliki'—one in Athens and one in Berlin (*FLMV*, pl. XVIII, 129)—and three from Pikermi (two illustrated in Pl. 11. 2, 5). The decoration of all these is similar; the lip, neck, and handles are covered with paint, and there is a band of wave-pattern round the base of the bowl. (This pattern is, of course, derived from the wave-pattern used on L.H. II alabastra.) Underneath the base are painted concentric circles.

The place of these alabastra seems to have been filled to a large extent in the L.H. III period by a straight-sided jar or pyxis (type C of Fig. 18). This occurs at most of the Attic sites, and there are about twenty examples in all. It is a type that was already foreshadowed in the straight-sided alabastron of L.H. II (*e.g.*, *Chamber Tombs*, pl. XXXIX, 19; pl. XL, 17, 18); but though similar in general form, the pyxis is deeper in proportion to its width. There is considerable variety of size; some are as much as 12 or 14 cms. high, others not more than 7 cms. The small examples frequently have only two handles, not three (*e.g.*, Pl. 11. 6, 7, 8, 11, 13, 14). As on the earlier alabastron-type, neck and handles are usually painted; stripes run round the vase at the base of the neck and on the vertical sides. In some examples the greater part of the sides is left unpainted (*e.g.*, Pl. 11. 9). The space between the handles is filled with some simple pattern such as cross-hatching (*e.g.*, Vourvatsi, Pl. 11. 9; Pikermi, Pl. 11. 4; Acropolis north slope, *Hesperia* ii, 367, fig. 39*b*), groups of vertical strokes (*e.g.*, Vourvatsi, Pl. 11. 7), or patterns of the type shown in Fig. 15 (*e.g.*, Pl. 11. 6, from Velanideza; Graef, pl. 4, no. 161).

Some of the late small pyxides have patterned sides as well. There are examples from Ligori and Kopreza (Pl. 11. 11, 13). There is similar decoration on a small triple pyxis from Ligori (Pl. 11. 3).

There seems to have been something of a fashion for these cruet-like pots late in the L.H. III period. There is a double one from the Acropolis (Graef, pl. 4, no. 160), and several in the Museum at Aigina (*e.g.*, 'Εφ. 'Αρχ. 1910, pl. 4, no. 8). Another double vase, from Kopreza, is in the same fashion, though the component parts are cups rather than pyxides (Pl. 11. 10 and 'Εφ. 'Αρχ. 1895, pl. 10, no. 11). Another fancy of the potter is seen in a pyxicle from Kopreza which stands on three legs (Pl. 11. 12). Multiple pyxides occur also among the very late Mycenaean pottery of Rhodes and Kephallenia.

Type D differs from other pyxides in the form of the neck and handles. The only known examples of this date come from the Athenian Acropolis. One of these is illustrated by Furtwängler and Löschcke (*FLMV*, pl. XVI, 104). Another was found by Broneer, with fragments of further specimens,

on the North slope (cf. Broneer in *Hesperia* ii, 367-8, and n. 3 on the occurrence of a similar type in Crete. The vase is illustrated *ibid.*, fig. 39a, p. 367.)

Jars. (See Fig. 19 and Pls. 12, 13.)

The large 'Palace style' amphora of the L.H. II period continues, in a modified form, in L.H. III (Fig. 19 A). But though it is fairly common in the Argolid, and more so in Rhodes, it is almost unknown in Attica, the only certain example, so far as I know, being the fragmentary one from Spata (*FLMV*, pl. XVII, 110). The Thorikos amphora ('Εφ. Ἀρχ. 1895, pl. 11, no. 1) is to be referred to the L.H. II period.

The small piriform jar (Fig. 19 B) occurs pretty frequently. The shape belongs to the earlier part of the L.H. III period; for it is common among the Mycenaean pottery from Tell-el-Amarna, but scarcely occurs at all among the Acropolis finds and at other sites which represent chiefly the latter half of L.H. III. Specimens do not vary much in size; most are between 10 and 14 cms. high. Some have a particularly narrow foot, which gives a rather top-heavy appearance (*e.g.*, Pl. 12. 18). There are normally three horizontal loop-handles on the shoulder. In the Argolid the handles are often set vertically, but I know only one example of this fashion from Attica (Pl. 12. 4).

The decoration consists of horizontal stripes with a broader band of paint round neck and foot, and a simple linear pattern between the handles on the shoulder (examples from Vourvatsi, Pl. 12. 1-3, 6). A few are wholly unpainted (*e.g.*, Pl. 12. 4, 5).

A variation from the usual type is shown in a vase from the Acropolis (Graef, pl. 4, no. 95), which has a rather unusually bulgy body, and only two handles. A similar example from the same site is recorded by Pelekidis (Δελτ. 1915, παρ., 36, fig. 4, no. 1). He also records a variety with two vertical handles (*ibid.*, fig. 4, no. 2).

From Kopreza there are two small pots of a shape basically similar to type B, but without the high foot (Fig. 19 C). One of them has three handles (Pl. 12. 14), the other has two. These pots seem transitional to another type (Fig. 19 D) which eventually replaced the piriform jars of earlier L.H. III times. The new shape is at first baggy and amorphous (*e.g.*, Kopreza, Pl. 12. 8, 13; Velanideza, Pl. 12. 10). But in time it assumes more definite proportions, with an almost globular body, a short, fairly broad mouth with a flaring lip, and two horizontal handles a little above the broadest part of the pot. Examples of this developed form occur at Kopreza (Pl. 12. 9) and Steiria (Pl. 12. 12), and there are six from the Porto Rapti road tombs (*e.g.*, Pl. 12. 15-17). In the main the decorative scheme is the same as on the

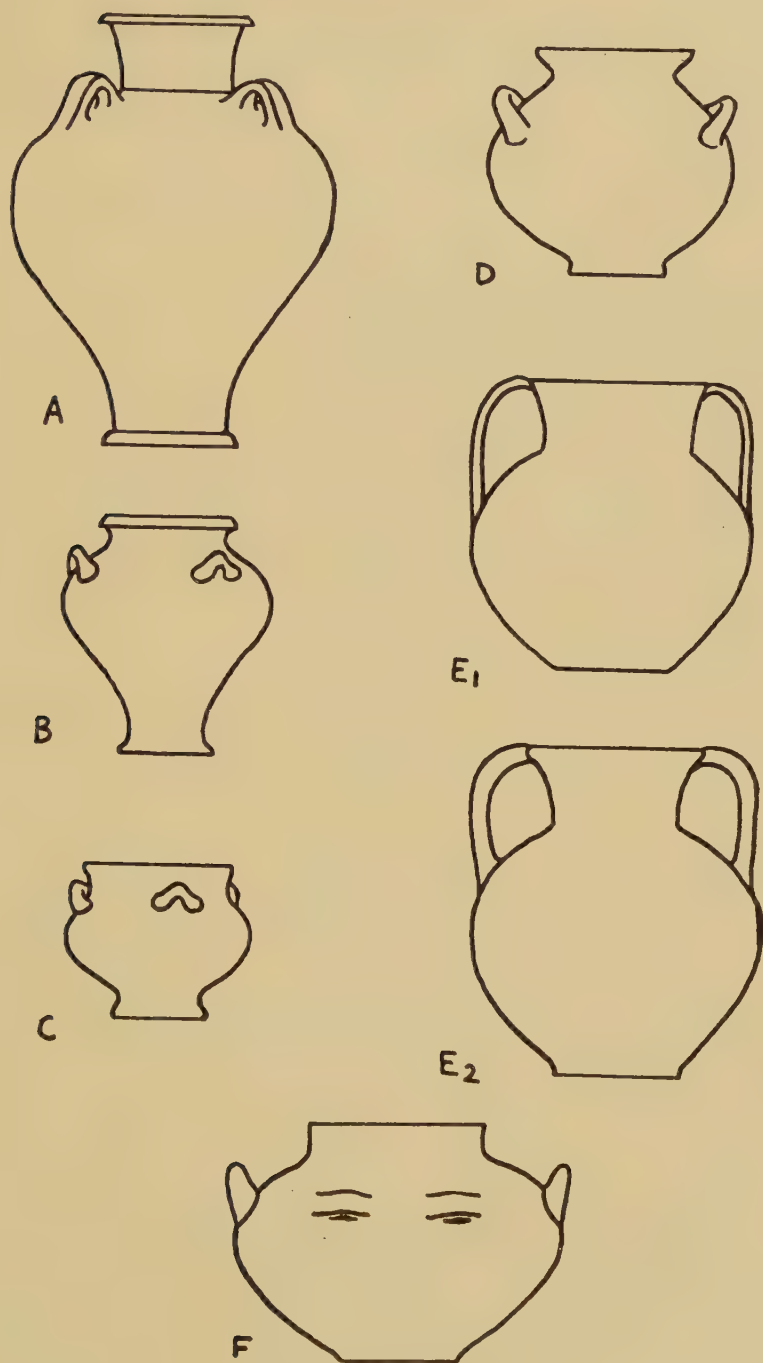


FIG. 19.—JAR SHAPES.

earlier types; the neck and handles are painted all over, and the body is ornamented with stripes; but a different spirit is discernible, especially in the patterns between the handles (one from Ligori, Pl. 12. 11, and another from the Porto Rapti road, Pl. 12. 16, are notable examples of this). One of the Porto Rapti road examples is painted all over (Pl. 12. 17). This vase-type seems to belong to the very end of the L.H. III period: there are closely similar pots in the 'Granary Class' from Mycenae (*e.g.*, *Chamber Tombs*, pl. XI, 12) and more from Tiryns (Conze, *Tiryns I*, pl. XVI, nos. 4, 8. They are classified in the text with Geometric pottery, p. 138). A very similar type of jar occurs in the Salamis class (*e.g.*, *AM* 1910, pl. VI, no. 8). There is, too, another variety of it, with a narrower and taller neck, which is also frequent among the Sub-Mycenaean grave-finds from the Kerameikos.

Type E (Fig. 19) is a globular jar with a broad vertical neck and two vertical handles fastened to the rim and belly of the jar. Probably such jars were also made in metal, since some of the pottery specimens have metallic features, including 'ribbon' handles with a much more angular bend in them than is natural in a clay handle, and occasionally a flat rim. (These features are both visible in Pl. 13. 3.) This is here classed as type E1. Of the six examples found at Vourvatsi two are painted all over (*e.g.*, Pl. 13. 3); so is one from Trakhones (Pl. 13. 6). Four from Vourvatsi and one from Kopreza are decorated with stripes, placed on lip, base of neck, at base of handles and on the foot (*e.g.*, Pl. 13. 2). An example from Pikermi (Pl. 13. 5) is quite plain.

Type E2 has none of the 'metallic' features. The handles are of circular section, and are less angular; the flat rim does not occur; none of this type is painted all over. The decoration with stripes persists; the handles may have horizontal bars painted on them (*e.g.*, a jar from 'Alikí' in Berlin, *FLMV*, pl. XVIII, no. 126). There are two similar jars from Spata, and one from Kopreza. This last (Pl. 13. 4) has a simple wavy band painted on the shoulder, a decorative fashion that relates it to certain kraters and bowls mentioned above (krater type B, p. 39; bowl type D, p. 40). There is one completely unpainted example from Vourvatsi. The fabric of these jars is similar to that of the 'Granary Class' amphoras at Mycenae (cf. for example *Chamber Tombs*, pl. XII, 5, and *BSA* xxv, pl. IX a). The example from Kopreza (Pl. 13. 4) must belong to the very end of the Mycenaean period. Wide (*JdI* xv, 50) would even class it as Protogeometric.

Besides these main jar-types there are several less common varieties. Type F is a squat jar with a very short neck; besides the two main handles it has two little strap-handles on the shoulder on either side. The type of neck suggests that such jars had lids which may have been fastened by tying to the extra

handles. Lids, pierced in the centre, have been found at various sites, though none belongs definitely to a jar of this kind. One was found at Vourvatsi (Pl. 13. 7) and one at Kopreza (Pl. 13. 8). There are three jars of this type definitely from Attic sites:

Vourvatsi: no. 208 (Pl. 13. 10)

Velanideza: no. 15 (Pl. 13. 11)

'Alikí'; Athens N.M. 26; *FLMV*, pl. XIX, 140.

Several similar jars in the collection of Mr. G. Empedokles, in Athens, are probably from Attic sites. The Velanideza example has, instead of extra handles on the shoulder, two pairs of small pierced knobs. All three are simply decorated with stripes. The 'Alikí' example has in addition a careless scroll drawn on the shoulder.

A similar type of jar was found at Korakou (*v. Blegen, Korakou*, fig. 98), and another at Mycenae, belonging to the 'Granary Class' (*Chamber Tombs*, pl. XI, 11). One from Kalymnos, decorated with a zone of animals, is in the British Museum (*B.M. Cat. I. i.*, A 1022, pl. XVI).

From Kopreza and 'Alikí' come two small round jars without handles. The Kopreza specimen (Pl. 12. 7) has stippled painting all over the body and stripes on the neck and at the base. The other (*FLMV*, pl. XVIII, 120) is painted with stripes alone.

The following are unique examples of their shapes:

1. A plain globular jar from Pikermi (Pl. 13. 9). It has two vertical handles attached on the shoulder.
2. A globular jar from 'Alikí' (in Berlin, *FLMV*, pl. XVIII, 121). It had three loop handles on the shoulder. The decoration includes an ivy-leaf pattern between the handles which dates it early in L.H. III.
3. A large amphora from the Porto Rapti road (Pl. 13. 1). It had two loop handles on the shoulder. The decoration is of stripes, with a zone of vertical strokes on the shoulder.

Jugs. (See Fig. 20 and Pls. 14, 15.)

The first shape under discussion (Fig. 20 A) seems to be derived from metal originals. The jug has a piriform body, and a tall cut-away neck. The strongly marked base-ring, the ridge where the neck joins the body, and the knob at the base of the handle, are purely adventitious in a clay jug, but in a metal one would be functional. Jugs of similar shapes were made in the L.H. I and II periods (*e.g.*, *Chamber Tombs*, pl. III) and they, too, have metallic features, sometimes including imitations of the rivets that would fasten the handle to the

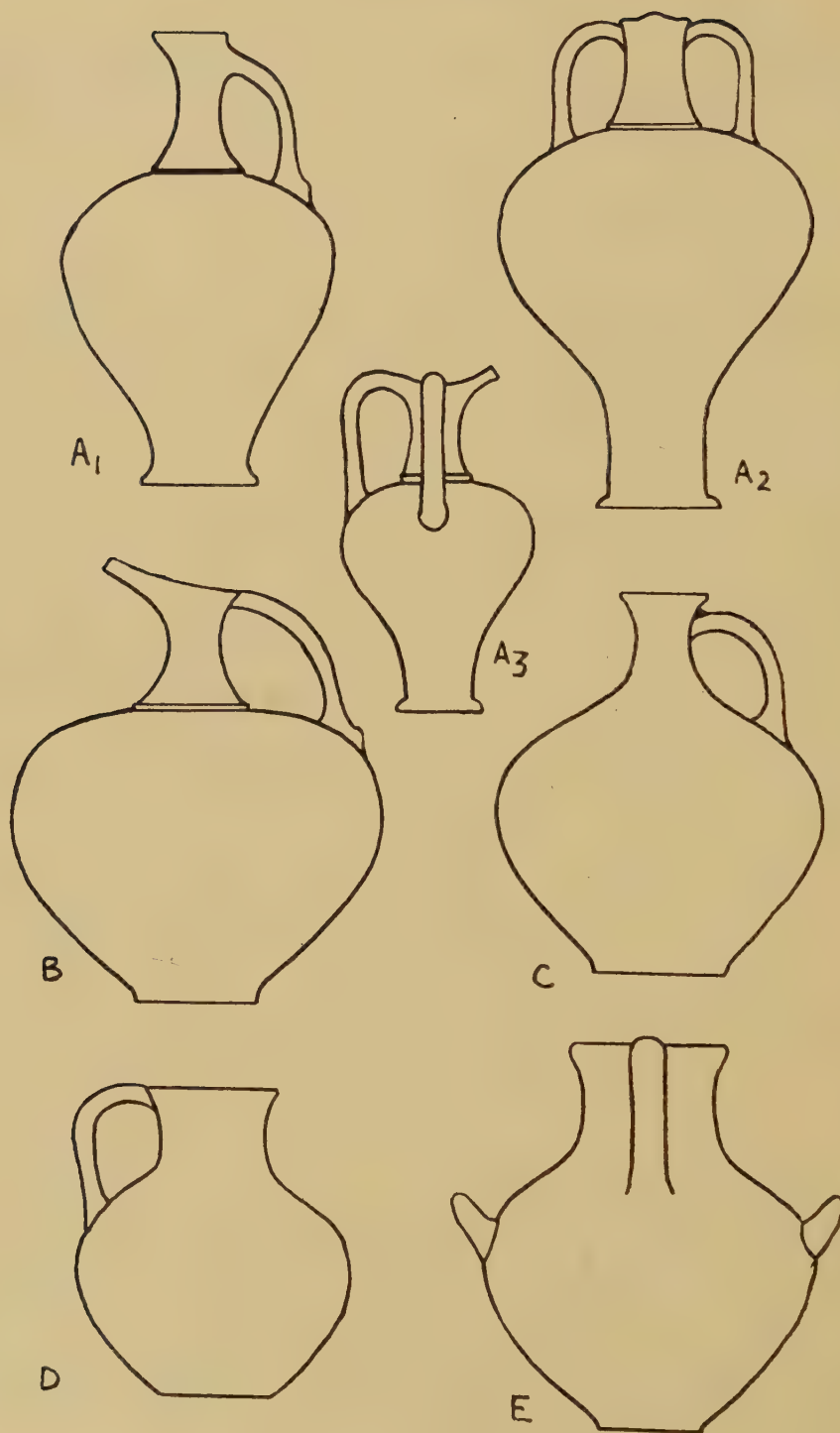


FIG. 20.—JUG SHAPES.

neck (*loc. cit.* no. 1). There are only two jugs of this type from Attica, one from Alikí (*FLMV*, pl. XVIII, 133) and one from Vourvatsi (Pl. 14. 2). (The neck of the Alikí specimen is not cut away at the back.) Both have similar decoration—bands round neck and foot, and wavy stripes down the body. This type is not infrequent in the Argolid (*e.g.*, *Chamber Tombs*, pls. XX, no. 2, XLV, no. 1; *Prosymna*, fig. 472, nos. 926–7), and the decoration of wavy stripes is used every time.

Closely related in shape to these are two two-handled jugs from Vourvatsi (Pl. 14. 6, 7; cf. Fig. 20 A2). These also have the marked base-ring and the ridge at the base of the neck, and the metallic appearance of one is increased by its smooth unpainted surface. The other is painted with stripes and lines like a stirrup-jar. Yet another variety has three handles (Fig. 20 A3). This is represented in Attica by one miniature specimen from Kopreza (Pl. 14. 5), painted similarly with stripes. Both the two-handled and three-handled types are more numerous in the Argolid and in Rhodes.

The broad-bellied jug with a beaked spout (Type B of Fig. 20) is also very probably derived from metal originals. In spite, however, of its metallic features, the shape was permanently adopted by the potter, and eventually transformed into type C (Fig. 20), which has rid itself of the superfluous ridge round the neck and the pseudo-rivet at the base of the handle. The type occurs in other parts of Greece too (*e.g.*, *Korakou*, pl. V and p. 50, n. 2, where examples from Thebes are cited). Probably the earliest examples of type B from Attica are two closely similar jugs from Kopreza (Athens N.M. 3765, 'Εφ. 'Αρχ. 1895, pl. X, 8), and Vourvatsi (Pl. 14. 3). The Kopreza jug has a few stripes round the neck and the base, and on the upper part of the body a conventionalised argonaut-pattern. This jug cannot be dated very much later than the beginning of L.H. III. The Vourvatsi example is probably a little later, for on it the argonaut is represented by a mere triple scroll. Further simplification of the pattern is seen on a small jug from Kopreza (Pl. 14. 4). This jug is small and poorly made, so that the casual motif may not necessarily indicate a later date. On the other hand, a new feature has been introduced in the stripes that encircle the belly of the jug. These become usual, and any patterned decoration is confined to the shoulder. On one example from Vourvatsi (no. 143, not illustrated) the shoulder-pattern is still a triple scroll; on another (Pl. 14. 1) it is a repeated linear ornament, perhaps derived from the floral pattern used on stirrup-jars. Another Vourvatsi example has simply a series of dots radiating from the base of the neck (Pl. 14. 9). This jug has no ridge round the base of the neck, and no knob at the base of the handle. A further Vourvatsi example (Pl. 15. 1), which bears a shoulder-pattern not unlike some found on late stirrup-jars, has the knob but not the

ridge, and has a moulded mouth instead of a beaked spout. In this last respect it is transitional to type C (Fig. 20), which regularly has such a mouth, and a handle attached lower down the neck; *e.g.*, Pl. 14. 10.

The shoulder-patterns which occur on Type C are all used on late cups (*v.* Fig. 15). One from Kopreza has circle-and-dot rosettes (Pl. 15. 2); another has broad dashes of paint. Another, in the Fitzwilliam Museum, has rows of dashes radiating from the neck (*CVA Cambridge* ii, pl. 5, 22, probably from Spata). Of four from the Acropolis north slope excavations, one has a simple repeated scroll-pattern, while on the other three the shoulder is plain (*e.g.*, *Hesperia* ii, 368, fig. 40b). There are other examples with a plain shoulder from Vourvatsi and Pynari (*e.g.*, Collignon-Couve, pl. VII, 111).

By far the commonest type of jug in L.H. III is one with a broad neck and roughly globular body (Type D of Fig. 20). At least sixty-five specimens, of sizes varying from 10 to 25 cms. high, have been found at Attic sites. Thirty or so of these are from Vourvatsi, but there are some from almost every site. As far as one can tell, they do not vary much in date. A number of the larger specimens are plain (*e.g.*, Pl. 15. 9) but those that are painted at all show little variation: there are usually single stripes on the lip, at the base of the neck, and round the base, and a group of stripes round the belly of the vase. There may be a stripe of paint—straight or wavy—down the handle, or sometimes it is decorated with transverse bars (*e.g.*, Pl. 15. 8, Vourvatsi). Small specimens tend to be better and more neatly finished, both in shape and painting, than larger ones (contrast Pl. 15. 10 with Pl. 15. 6 or Pl. 15. 3). Maybe the transverse bars on the handle indicate a late date, as this way of treating handles occurs on late stirrup-jars and bowls. But generally there is little indication of date. None of the jugs is likely to be earlier than the second half of L.H. III, or we should expect to find some more imaginative decoration. One specimen from Vourvatsi (Pl. 15. 5) seems to belong to the very end of L.H. III. The proportions of this jug, especially of the neck, and the way in which the neck is painted, remind one of jars of the 'Salamis Class' or Protogeometric (*cf. e.g.*, *Kerameikos* i, pl. 54).

There are a few jugs of this shape which have two extra handles on the body of the vase, like the hydria of later times (Type E of Fig. 20). One comes from Vourvatsi (Pl. 15. 4), one from Menidi, and one from the Acropolis (*Hesperia* ii, 371). The Vourvatsi and Menidi jugs are quite plain. There are also several miniature jugs of this type, which have the usual stripe-decoration, with slight additions on the shoulder (*e.g.*, Vourvatsi, Pl. 15. 7; Ligori, Pl. 15. 11). A fair-sized jug of this sort occurs also among the Salamis pottery (*cf. AM* 1910, p. 24 and pl. VI, 6).

The 'Salamis Class' jugs with a broad, trefoil-lipped neck, are probably

a later development of our Type D; while the narrow-necked varieties may derive partly from late stirrup-jar types (see note on use of stirrup-jars, p. 24 above).

Bottles. (See Fig. 21 and Pl. 16.)

There are two types of bottle among the L.H. III pottery of Attica, neither of them common. Of the first (Fig. 21 A), single examples are known from Vari, Kopreza, and the Porto Raphti road, and two from Vourvatsi. The decoration of these is on the whole similar to that of the stirrup-jar; that is, the body is painted with horizontal bands, and the space on the shoulder between the handles occupied by a simple pattern. The Vari example (Collignon-Couve, pl. VII, 108) has a linear floral ornament on the shoulder (as Fig. 5, no. 6) and on the body a zone of chevrons, like a stirrup-jar of our type B



FIG. 21.—BOTTLE SHAPES.

(*v. supra* p. 20). The Kopreza example is perhaps a little later; the shoulder-pattern consists of groups of chevrons, and the stripes on the body are fewer (Pl. 16. 1). The Porto Raphti Road one (Pl. 16. 2), perhaps later still, has a plain shoulder; there is a crude lack of finish about the mouth. Of the Vourvatsi examples one is of poor workmanship and rather damaged; the other (Pl. 16. 7) is of peculiar interest in that it is made of a grey Minyan ware. There seems no doubt, from the associations of the find as well as from the shape of the bottle, that this really does belong to the L.H. III period. There is another vase of similar fabric from Vourvatsi, a one-handled cup (type C of Fig. 14); and there are in the Athens Museum two more almost identical bottles (Pl. 16. 3, 4). These latter are of doubtful provenance, but appear to have been found in association with other Mycenaean pots including two cups (Pl. 9. 15, 16) which closely resemble some Attic specimens.

Three small pots of rough grey Minyan from Eleusis are fairly certainly dated to L.H. II (Προϊστ. Ἐλευσίς, 130 and fig. 109). So there may well have been a fairly continuous production of grey Minyan vases in the Late

Helladic period, though in small quantities. L.H. III examples are also known from the Argolid (cf. *Prosymna*, 425, 430, etc.).

The other type of bottle is the well-known 'pilgrim-flask' (Fig. 21 B). This shape, as has been frequently noticed, is very common in Cyprus, but rare on the Greek mainland. Six were found at the Argive Heraeum cemetery (*Prosymna*, 442), one of them particularly fine and large (*ibid.*, pl. VIII) but at Mycenae scarcely any. There are two from Vourvatsi (Pl. 16. 5, 6) and one from Aliki (Collignon-Couve, pl. VII, no. 116). All three are decorated in the usual manner of such pilgrim-flasks; two have close-set concentric circles and the other (Pl. 16. 6) closely-wound spirals on either side of the

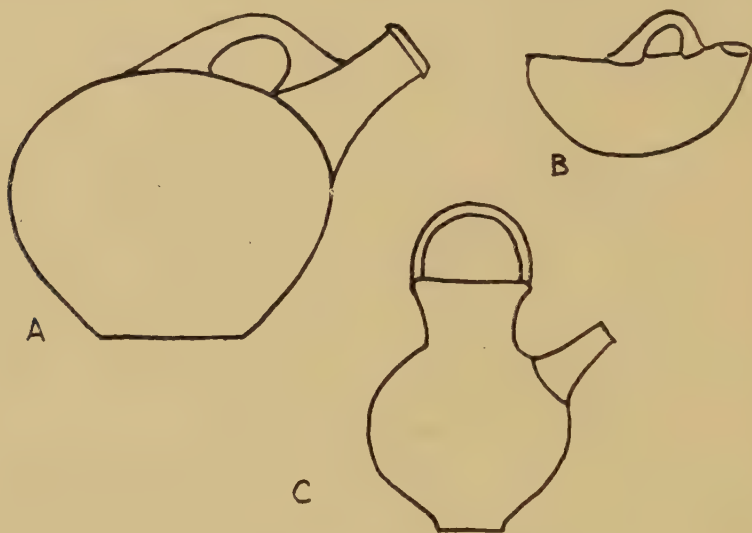


FIG. 22.—MISCELLANEOUS SHAPES.

globular body. One of the Vourvatsi examples has chevrons in the space below the handles; the other two have a flower-ornament. This type of vase is well represented among the Tell-el-Amarna sherds and the Attic examples also probably belong to the first half of L.H. III.

Miscellaneous Shapes. (See Fig. 22 and Pls. 16, 17.)

The askos (Fig. 22 A), a closed globular jar with an oblique spout to one side and a handle attached close to the spout, is a shape rare among Mycenaean pottery from the Argolid, but less so in Attica. There are five from Vourvatsi, two from Koproza, two from the Acropolis, and single examples from Aliki and Pikermi. All are of a fair size, averaging about 15 cms. in height. About half of them are unpainted, but have a fine slip with a smooth finish

(*e.g.*, Vourvatsi, Pl. 16. 8; Acropolis, *Hesperia* ii, 364, fig. 35a); on one example from Vourvatsi the slip is of a clear white, which is very unusual in L.H. III pottery. The rest are simply decorated with broad stripes round the body of the pot and on the neck and handle (*e.g.*, Pikermi, Pl. 16. 10; Aliki, *FLMV*, pl. XVIII, no. 127). One Vourvatsi example (Pl. 16. 9) also has the upper half of the body covered in paint, and another (no. 186) is painted all over.

Besides these, there are a certain number of miniature hand-modelled askoi (Fig. 22 B). They are generally poorly made and carelessly decorated with dabs and streaks of paint (*e.g.*, Kopreza, Pl. 16. 12, which is the best of them; Vourvatsi, Pl. 16. 11; Acropolis, *FLMV*, pl. XVI, no. 190).

One other askos from Vourvatsi must be mentioned. It is in the form of a hollow ring, white-slipped, and decorated with two rows of a simple repeated pattern (Pl. 16. 13). The shape is unique in Attica and rarely paralleled elsewhere. There is one similar vessel from Rhodes; it is identical in shape and very similar in decoration (*CVA Copenhagen* i, pl. 46, no. 9). Ring-vases of nearly the same shape, but with a handle spanning the ring, occur in the Mycenae 'Granary Class' (*v. Chamber Tombs*, pl. XI, nos. 7, 8). There is also, in Leiden, a ring-askos of doubtful origin, of the same shape as the Vourvatsi one; but it appears on general considerations of style and fabric to be post-Mycenaean (Brants, *Descr. Anc. Pottery, Mus. Arch. Leiden*, pl. X, no. 12).

The pot-shape variously and unsatisfactorily designated 'feeding-cup' or 'tea-pot' (Fig. 22 C) is well represented in Attica. Fifteen of the twenty-seven specimens come from Vourvatsi, but the other twelve are scattered over seven sites. In height they seldom exceed 12 cms.; about half are painted all over in glossy red (*e.g.*, Pl. 17. 1, 2, 6, 7); most of the others have a painted neck and stripes on the body (*e.g.*, Pl. 17. 3, 4). Only rarely is there a pattern on the shoulder (*e.g.*, Pl. 17. 5). Two examples stand out on account of their large size—they are about 25 cms. in height. One, from Kopreza (Pl. 17. 8), has the neck painted, stripes on the lower half of the body, and a wave-pattern on the shoulder. The wave-pattern is reminiscent of the wave-pattern on L.H. II alabstra, and the pot is therefore perhaps quite early L.H. III. The other (Pl. 17. 9) has a similar scheme of stripes, and on the shoulder a broad wavy line which, as noted above (p. 46), is generally indicative of a date towards the end of L.H. III. The general proportions of the shape confirm this (*cf.* p. 50 above, on a jug from Vourvatsi).

A variety of this type, with an ordinary jug-handle, occurs once among the Acropolis pottery (Graef, no. 175, pl. 5). Water-jars with the same type of spout (generally with a jug-handle) are used in Syria today, and have in fact

been used since at least the second millennium B.C. Similar jars are also used in Crete. The spout is used for drinking or pouring. 'Drinking-jars' would be a far better name than 'feeding-cups'.

Cooking-pots. (See Fig. 23.)

A certain number of coarse L.H. III pots turn up which appear to be domestic cooking utensils. Such coarse ware is frequent at habitation sites, but is often badly broken, and the fragments, being thick and coarse, are easily so damaged as to make restoration impossible (cf. Broneer in *Hesperia* ii, 371). Examples from tombs, however, are more likely to be preserved complete, and there are several such from Attic sites.

From Menidi come three wide-mouthed jars with two handles at the rim (for shape v. Fig. 23 A). There is another from Spata, and a similar jar, but

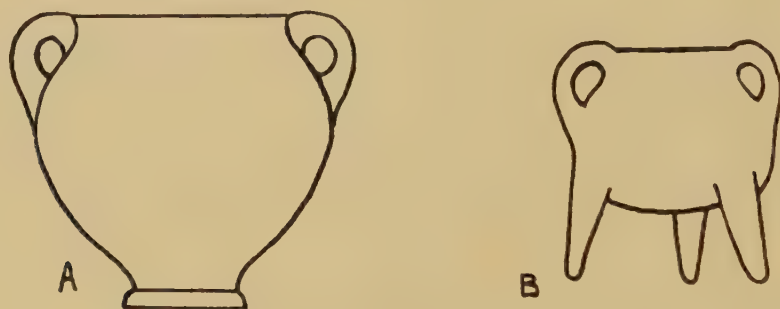


FIG. 23.—COOKING-VESSELS.

with one handle, from Vourvatsi. Another type is more globe-shaped, and stands on three legs (Fig. 23 B). There is one pot of this sort from Spata, and two have been found on the north slope of the Acropolis, one with one handle and one with two (cf. *Hesperia* ii, 371, and fig. 45). Both these types are known also from the Argolid.

Plastic Vases.

Plastic vases of the Mycenaean period are few in Attica. I have only come across these:—

1. A small hand-made 'askos' from Vourvatsi (Pl. 17. 10) in the form of a bird with, strangely, three feet. There is a hole in the breast of the bird and another at the back beside the handle; presumably one is for pouring and the other an air-hole.

2. A small jug of a shape perhaps representing a pig, from Vari (Collignon-Couve, no. 104 and pl. VII).

3. A vase in the form of a boot in the Athens Museum, said to be from Pikermi. This piece is of very good buff clay with glossy orange-red paint (Fig. 24; cf. *Friends of Nat. Mus. Athens Ann. Report* 1934-5, 8, fig. 5).

Ritual Vessels. (See Fig. 25 and Pl. 18.)

I have classed as ritual vessels rhytons or funnels, and several other pots which appear from their form or decoration, or both, unlikely to have been used for everyday purposes.

First of these types is the rhyton of narrow conical form (Fig. 25 A). There are three funnels of this sort from Vourvatsi, all in a very good state of



FIG. 24.—PLASTIC VASE FROM PIKERMI.

preservation. Two (one of them notable for the greenish colour of the clay) are described and illustrated by Kyparissis (*Δελτ.* xi, παρ., 65, figs. 26, 27). The third is similarly decorated with stripes and lines, with a broad zone of geometric patterns below the lip (Pl. 18. 1). Artistically this is perhaps the best of the three, and it is of good, hard, smooth clay with a fine, glossy, orange-red paint. There is another good example of this type, said to be from Attica, in Berlin (*Altes Mus. Inv.* 31105). Round the upper half are painted six fantastic birds (Pl. 18. 5). This rhyton-shape is also represented by a fragment (handle and rim) from Spata (*FLMV*, pl. XVII, 114); and two small fragments from the Acropolis (Graef nos. 93; 94, pl. 3) may also be from similar vases.

The other type of Mycenaean rhyton (Fig. 25 B) has a piriform body, and a collar-like neck. There are only two specimens from Attica. One is

from Vourvatsi (Pl. 18. 3); it is decorated with stripes, and with cross-hatchings on the shoulder. The other comes from Trakhones (*FLMV*, pl. XIX, 139). The decoration is similar to that of the last, but the geometric pattern on the shoulder is not so barren of interest.

It is difficult to draw any conclusions as to the date of these rhytons, but I

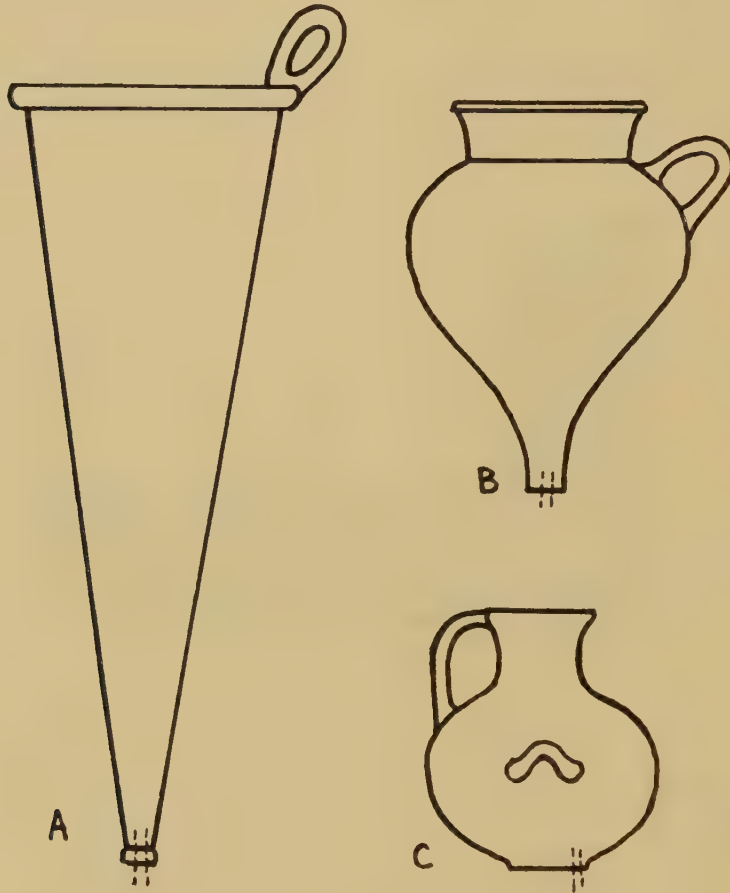


FIG. 25.—RITUAL VESSELS.

should be inclined, on consideration of the ornament, to place the Berlin one and the two patterned examples from Vourvatsi in the second half of L.H. III. Their good fabric need not indicate an earlier date, since ritual vessels are likely to have been more carefully made than ordinary pottery.

There also occurs in the L.H. III period a certain type of small jug (Fig. 25 C), with a small hole pierced in the base, which may have served a similar purpose to the rhyton. The point has been discussed by Forsdyke

in connection with two jugs in the British Museum from Rhodes (cf. *B.M. Cat. I. i*, 158). Two jugs of this kind have been found in Attica. One from Kopreza (Pl. 18. 2) is not unlike the British Museum specimens in general appearance; it has a fine, yellowish buff surface, and is decorated on the body. Most of the paint is effaced, but the pattern is still traceable (Fig. 26). The flower-ornament used in it is closely paralleled on the large tankard from Vourvatsi (Pl. 8. 13), and on two kylikes, one from Vourvatsi (Δελτ. xi, παρ., 63, fig. 24, top row, centre) and one from 'Aliki' (*FLMV*, pl. XVIII, 122). Related flower-patterns are, of course, known from elsewhere; but this particular variety may perhaps be the product of one group of potters in Attica.

Other similar pierced jugs have been found at Nauplia (Athens N.M. 3566) and the Argive Heraeum tombs (*Prosymna*, fig. 290, no. 702). The neck



FIG. 26.—PATTERN FROM RITUAL JUG FROM MARKOPOULO.

and handle of the latter are missing, and the base slightly damaged, so that the pierced hole is only recognised on very close inspection. The existence of this hole, however, and the decoration of the vase, show that it really belongs to the same class as those mentioned above. (In *Prosymna*, p. 125, the jug is wrongly described as a 'small-mouthed jar'.)

Similar in shape, though different in decoration, is a pierced jug from Vourvatsi (Pl. 18. 4). A number of plastic figure-of-eight shields are attached to the body of the jug. The space between these is covered with red paint. There is a group of stripes below, a broad stripe and chain pattern round the rim. (See note below on the significance of the figure-of-eight shield.)

A peculiar jug in Berlin which was found in a cave on Mount Hymettos is also apparently a ritual vessel (Pl. 14. 8). It is about 20 cms. high. Out of the main neck projects another neck with a broad rim like the main one; it is to this rim that the handle of the jug is attached. On the shoulder, on either side of the handle, is attached a small replica of the whole jug.

These subsidiary jugs are pierced so as to communicate with the main jug, the bottom of which is also pierced. There are stripes round the lower part of the body and on the upper half a four times repeated pattern consisting of a figure-of-eight shield flanked by spirals attached to the waist of the shield. Another strange pierced vessel comes from Trakhones (Collignon-Couve, no. 103 and pl. VII; *FLMV*, pl. XIX, 137). Besides the ordinary jug-handle there are four hollow ring-handles in the form of serpents. These are pierced to communicate with the interior of the pot near their heads and tails; the base also is pierced.

Finally there is a bucket-like pot from Vourvatsi which has its base pierced in the same way. It is of very good fabric, and painted all over with horizontal stripes and lines (Pl. 18. 6).

Note on the figure-of-eight shield-pattern.

Professor M. Nilsson says (*Minoan-Mycenaean Religion*, 352): 'The evidence on the ground of which the shields are asserted to be cult objects is very slight and dubious.' On the other hand, the appearance of the shield on the ritual vessels does make it seem probable that at least in the L.H. III period the figure-of-eight shield was associated with some cult. The pattern is also found, however, on two L.H. III sherds from Schliemann's Mycenae excavations which appear to come from large kraters—a shape which need not be referred to any but everyday uses.

A peculiarly-shaped askos from Kythera bearing this pattern is of interest. It was found in an L.H. III tomb (*v. Δελτ.* i, 191-4 and fig. 2), associated with other pottery, including a small deep cup with the shield-ornament, and with a steatite vase undoubtedly much earlier than L.H. III. This is no ordinary tomb-furniture, though it might perhaps be placed in the grave of some person (such as a priest) particularly associated with a religious cult. The connexion of the figure-of-eight shield with a warrior-goddess cult has been suggested by Rodenwaldt (*AM* 1912); and Pausanias (iii, 23) tells us that in Kythera the goddess Aphrodite was represented *armed*. This conception of Aphrodite in historical times may then have been due to partial survival of a Mycenaean cult. One must admit, however, that the evidence is far from certain.

APPENDIX: THE POTTERY FROM THE MYCENAEAN WELL ON THE ACROPOLIS.

These finds were not available for study when the bulk of the above was written, although Dr. Broneer very kindly allowed me to examine them before their publication (in *Hesperia* viii, 1939, 317 ff.). This appendix is in the main a summary of what has been said at length there, with a few comments added on the relation of the types represented to the other Attic Mycenaean described above.

Stirrup-jars: There were a few with a raised point on the central knob (*Hesperia*, l.c., fig. 70 d-h), one example of an air-hole on the shoulder, a few sherds of genuine Close Style and more of a local variety of it (*ibid.*, fig. 71). These features all indicate the late date of the deposit.

Perhaps most interesting is the find of numerous fragments of a stirrup-jar

shape (our Fig. 2 H) peculiar to Athens. Examples were found also in the old Acropolis excavations (cf. p. 20 above, with references).

Kylikes : (*Hesperia*, *l.c.*, figs. 57-8). Type H was common. A good number of bases were found of a type something like our J (Fig. 10). Both are late. The decoration of the tall-stemmed examples is unusual. The whole stem and almost all the bowl are frequently coated with paint. It is a hasty and careless method of decoration typical of the end of L.H. III. There are, as Broneer says, no exact parallels to these kylikes; but late kylikes from Rhodes and Kephallenia are not unlike in a general way (*e.g.*, *Annuario* vi-vii, 190, fig. 113 second shelf, right; 'Εφ. 'Αρχ. 1932, pl. 6).

Tankards : A fairly common shape; more squat and with a more accentuated concave profile than in the earlier type, and the base is quite flat instead of rounded (cf. *Hesperia*, *l.c.*, fig. 55 with our Fig. 14B). The decoration is not much changed: the horizontal band half-way up persists, and there is on some examples still a raised ridge in that position. (Cf. below p. 64.)

Cups : The most interesting type is Broneer's shape 8 (*Hesperia*, *l.c.*, fig. 59a), which seems peculiar to Athens. It may well be, as he has said, a development of the earlier cup-type of our Fig. 14C. The shallow cups with a carinated bowl and two horizontal handles (*l.c.*, fig. 61b) are paralleled in the Mycenae Granary Class. Ladles (type C of Fig. 13) are much rarer than in the houses excavated on the north-east slope of the Acropolis.

Kraters : Innumerable fragments, though none could be fully restored. Profiles vary considerably, but the general form is not unlike our Fig. 16 B, with various late developments. There is usually a heavy rim, often decorated on the upper edge, and sometimes plastic bands below the rim (*Hesperia*, *l.c.*, figs. 26, 27). Decoration is generally of the 'metope' or 'panel' type, and designs are increasingly geometric. Some examples have figured decoration.

Deep bowls : (Fig. 16, type C). These (which Broneer calls *skyphoi*) are very numerous. Many are painted all over, or all but the lower part, or a band below the handles. A similar scheme occurs in the Mycenae Granary Class.

Large bowls : (Broneer's shape 4, *l.c.*, fig. 50). These are not common elsewhere. They appear to be household mixing-bowls. The 'bell-shaped bowl' (Broneer's shape 5, and fig. 53) is a late version of our bowl-type E (Fig. 16). As in the example from the Porto Rapti road (Pl. 10. 12) the profile has lost its double curve. There are bowls of a similar shape among the Mycenae Granary Class, but smaller.

Pyxides : Not numerous. It is interesting that further examples were found

of type D (Fig. 18) which is peculiar to Athens (cf. p. 43 above). A number of lids were found, belonging either to pyxides of this sort or to some other jar shape.

Amphorae: (*Hesperia*, l.c., fig. 74). These are like our Fig. 19 E2, but larger. Some have rope handles, a late feature.

Pitchers and Hydriai: (Broneer's shapes 24 and 25, figs. 76, 77) were fairly common. Their nearest parallels elsewhere are among the Mycenae Granary Class.

The frequency of certain shapes, such as kraters, large bowls, amphorae, pitchers, which are rarer elsewhere, is explained by the fact that the deposit contained sherds dumped from a habitation site. The L.H. III pot-types most familiar to us are, on the other hand, those that were used as tomb-furniture.

The finds represent the very end of the L.H. III period, the latest being contemporary with the very earliest pots from the Kerameikos graves. Broneer dates the whole deposit between 1200 and 1150 B.C. and draws interesting historical conclusions (l.c., 416 ff.). Disturbed political conditions would account for the strongly local character of the pottery. Even where there are affinities with the Granary Class at Mycenae there are differences too, and some shapes are peculiar to Athens alone—e.g., the stirrup-jar with splayed foot, pyxis type D (Fig. 18), and the one-handled cup (*Hesperia*, l.c., fig. 59a).

III. CONCLUSIONS.

THE INFLUENCE OF METAL WORK.

A close examination of L.H. III pottery reveals a number of features in both form and decoration which are reminiscent or deliberately suggestive of the technique of metalwork. There are certain normal methods of shaping and finishing both metal and clay vessels, each dictated by the material. A clay pot is virtually one piece of clay, except for spout and handles: a metal pot may have to be made in two or more sections—for example, the neck and body of a jug—and there will be a visible seam or ridge where they join. The base of a clay pot is usually all of a piece with the walls; that of a metal one may be a separate piece, folded over and welded on to the sides, and so producing a more distinct base-ring than is usual in pottery. (A pot of *beaten* metal may of course have walls and base in one piece, and then it has no base-ring at all, and no sharp angle between base and sides.) Clay handles are most easily made of strips of clay, round in section, so attached to the pot that they grow out of it as a branch from a tree. Metal handles are frequently made of a flat, ribbon-like strip, merely riveted or soldered to the vessel.

The rim of a clay pot is easily moulded smooth with the fingers as it revolves on the wheel: a metal pot naturally has a sharp edge which must be given a better finish either by folding it over like a hem, or else by attaching a flat rim in a separate piece. The material affects the general shape too. Baked clay is a rigid material, but metal, especially if thin, is easily buckled, and metal vessels are often made with an ogival profile to give greater rigidity.

All these features of metallic form may be seen also in pottery of the L.H. III period. In pottery they have no functional purpose, and can only be explained as imitations of metalwork, deliberate at first, but later perhaps merely traditional. The potters appear to have imitated not only the form of metal vessels, but also their appearance. It has frequently been observed that the colour and smooth finish of grey and yellow Minyan ware may be intended to represent silver and gold, a view that is supported by the metallic shapes of Minyan pots. The pottery of L.H. I and II and the earlier phases of L.H. III is often of a fabric very like yellow Minyan, even though it is painted; and there are still a number of types regularly left unpainted, as though to suggest a metallic appearance. There are even a few pots of grey Minyan ware of L.H. III date. Later in L.H. III occur a number of pots coated all over with a glossy paint, red or black in colour, according to conditions of firing. This method of painting seems to be another way of suggesting a shiny metal surface, and occurs only on pots of metallic form (cf. Evans, *Tombs*, 125). Thirdly there is the method of painting usually described as 'stippling', though actually it is done with a sponge, not a brush. This may be intended to represent the mottled surface of beaten metal which has not been polished. It is fairly common in L.H. I and II, where it may sometimes represent other things—eggshell for example (cf. *Chamber Tombs*, 82). In L.H. III it occurs only on shallow cups and small tankards (e.g., Pl. 8. 1, 10).

The following is a list of the L.H. III pottery types in which indications of the influence of metalwork may be observed.

Stirrup-jars. The evolution of the stirrup-jar, as represented by finds of pottery, shows considerable gaps, both in Crete and in Mainland Greece. To explain the rarity of such pots in the L.M. II period, Sir Arthur Evans has very plausibly suggested that metal stirrup-jars were then in use (Evans, *Tombs*, 120–122; *P. of M.* IV. i, 299 ff.). This theory accounts for the extreme rarity of the shape in L.M. II pottery, and for its renewed appearance in a well-developed form in the far less prosperous L.M. III period, when metal vessels would be less common. On the Mainland stirrup-jars begin, practically speaking, with the developed L.H. III types. This also may be explained by supposing that L.H. III stirrup-jars had as their prototypes

not earlier clay stirrup-jars, but already developed metal forms. Unfortunately, no examples of metal stirrup-jars have been found.

However, the clay stirrup-jars supply considerable evidence for the existence of metal prototypes. Sir Arthur Evans has pointed out (*l.c.*) how the decoration of certain piriform stirrup-jars recalls that of extant metal vessels of similar date. It might be added that the stirrup-jars he discusses show a no less metallic character in their shape and finish than in their decoration. The ogival profile, the clearly marked ridge at the base of neck and spout, the clean-cut rim of the spout, and the thin-edged disc on the false neck have all a metallic look.

Piriform stirrup-jars are, however, rare in Greece; and though this fits well enough with the idea that this is primarily a metallic shape, it conflicts with the theory that L.H. III stirrup-jars are copied from metal originals, unless we suppose there were metal stirrup-jars of other varieties besides the piriform. Actually the pottery examples suggest that there were. Quite a number of the globular variety have the same ridge at the base of the false neck (*e.g.*, Pl. 1. 5, 7, 11). The ridge does not mask a join, as it would in metal, since the false neck of these stirrup-jars is not a separate piece, but drawn up from the top of the jar itself. That not all have this ridge may readily be explained; the stirrup-jar shape was so completely adopted by the potters that by no means every example would be made as a conscious imitation of metalwork.

Metal vessels were almost certainly the prototypes of the flat-topped varieties of stirrup-jar (Fig. 2, E, F, G). Their very angular profile would be extremely difficult to produce in clay, and is more likely the invention of a smith than a potter. The deep base-ring is a metallic feature (*e.g.*, Pl. 1. 8, Pl. 3. 6), and there is one example (Pl. 3. 2) which is painted all over as though to represent the colour or lustre of metal.

Stirrup-jars of these varieties often bear a zone of simple linear pattern. These patterns were not used before on L.H. III pottery, and may be copied from engraved patterns on metal. Flat-topped stirrup-jars generally suggest deliberate copying of metalwork. Some of them are very fine objects; in metal they would have looked even more distinguished, and probably were prized very highly. Perhaps that is why the stirrup-jars in the Menidi tomb were all of metallic type; actual metalware would have been too great an extravagance, but these were the next best. These types did not enjoy a long popularity, probably because they were difficult to make in pottery.

Kylikes. It has long been recognised that the kylix-types of Late Helladic pottery owe their form to metal originals. Several varieties of kylix actually made in gold or silver are known from the Mycenae Shaft Graves, and

Evans (*P. of M.* IV. ii, 363–364) has pointed out their relations with L.M. Ia and L.H. I clay kylikes; but the kylikes of L.H. III must be copied from later and different metal types.

The details in which the L.H. III varieties imitate metallic technique have already been mentioned (pp. 24–32 above, *passim*) and may be briefly summarised. Type F (see Fig. 10) has a moulded rim, and the lower ends of the handles are attached flat against the bowl. Type K, which also has such handles, has a close parallel in gold from Mycenae (cf. p. 31). Both these types are regularly of smooth unpainted fabric. Types A and B are sometimes unpainted, but often imitate a metallic surface by a complete coating of paint. Type H (Fig. 10), with a definitely angular profile, is perhaps copied from the later varieties of a metal type represented in the Shaft Graves (*Schachtgräber*, pl. CXII). It is usually plain, though examples painted all over have been found at Berbati and at Palaiochori in Kynouria (unpublished).

No actual metal kylikes of the L.H. III period have been discovered in Greece¹; but one of silver of L.M. II date was found in the Royal Tomb at Isopata near Knossos (Evans, *Tombs*, 155, fig. 139) and another, of bronze, in the 'Tomb of the Tripod Hearth' at Zafer Papoura (*op. cit.*, pl. LXXXIX, n). The bronze one is not so very unlike our Fig. 10 F in shape.

Shallow cups. The usual variety in Attic L.H. III (Fig. 13 A) does not suggest a metallic origin. But there is another variety which has a flat rim and a small circular ribbon handle. This type is fairly common in the Argolid, and some examples are painted all over in red, except for the lip, which is painted with little oblique strokes to represent the chased decoration of their metal prototypes (*e.g.*, *Prosymna*, fig. 455, no. 155; fig. 127, no. 264). Examples are known in silver, gold, and bronze (*e.g.*, *Schachtgräber*, pl. CXXVII, nos. 509, 519; pl. CXXXVI, no. 786; pl. CLXIV). Bronze examples of the same shape, though on a much larger scale, have been found in Crete (*e.g.*, Evans, *Tombs*, pl. LXXXIX, b; for L.M. I examples see *P. of M.* II. ii, figs. 402–409); these are later in date.

Bell-shaped cups. This shape may perhaps be traced back to types represented in the Shaft Graves (*e.g.*, *Schachtgräber*, pl. CVIII, no. 442; pl. CXXVII, no. 518). Clay examples generally have a raised base (as Fig. 14 A), which seems in a ceramic technique. Nevertheless there are some with a flat base, like the painted one from Kopreza (Pl. 8. 6); and of eleven examples from the Argive Heraeum cemetery there are "two in grey Minyan, three in yellow Minyan and one coated all over with red paint" (*Prosymna*, 431). This seems to show that the metallic prototypes were not lost sight of.

¹ P.S. Four silver kylikes have been found at Midea, 135–7 and fig. 117. Dendra: see A. W. Persson, *New tombs at Dendra near*

Tankards. Three varieties of this shape may be distinguished. The first is small, with only slightly concave sides. It is usually painted in the 'stippled' manner, with bands round lip and base, and has a ridge (also painted with a band) running round it half-way up (*e.g.*, Pl. 8. 10). The second is the type represented by the fine example from Vourvatsi (Pl. 8. 13). This variety usually has patterned decoration; but the metallic features—the grooved band round the middle, the concave sides, and the flat base curving up towards the edges—are well marked. The third variety (not represented in Attica) is shorter in proportion to its diameter; it is sometimes coated with paint all over (*e.g.*, *Prosymna*, fig. 254, no. 655). These tankards apparently reproduce originals of beaten metal; hence the form of the base and the stippled painting of the small, early, examples (*cf.* pp. 60–61 above). 'Twenty, nearly all with the . . . stippled pattern' were found in an early L.H. III stratum in the 'Ramp House' at Mycenae (*BSA* xxv, 80). The ridge round the tankard may possibly represent a seam or join in the metal original, especially of the taller variety, which would presumably be more difficult to beat out of a single piece of metal. On the other hand, it may simulate a hollow corrugation of the type which appears in several gold cups from the Mycenae Shaft Graves and had the function of strengthening the thin walls of the cup (*e.g.*, *Schachtgräber*, pl. CIII, no. 173; pl. CVII, no. 441). Even when there is no plastic ridge or groove round pottery tankards there is a painted band, and this feature is so persistent that it may even cut right through the decorative pattern (*e.g.*, Munich Cat., no. 43, pl. 2). The only extant L.H. III tankard in metal is a bronze one from Tiryns, of the squat type. It is beaten from a single piece of bronze, and has no ridge round the middle (*AM* 1930, Beil. XXXIII and p. 130). This has been dated to the end of the Mycenaean period (*cf. ibid.*, p. 138) and indeed all the squat examples in pottery also seem late.

The tall variety is rare in Mainland Greece.¹ In Rhodes it is far more frequent. For examples see:—

Annuario vi–vii, 143, fig. 65; 156, fig. 80; 229, fig. 146; 255, fig. 159.

CVA Copenhagen i, pl. 48, nos. 9–12.

CVA B.M. v, pl. 5, nos. 22–23.

These all appear from their style to belong roughly to the middle of L.H. III.

The remaining L.H. III cup types seem to be purely ceramic in form, although one or two specimens show metallic features (*cf.* p. 36 above).

¹ Examples from sites elsewhere than Attica:

Nauplia: Athens N.M. 3450. (*FLMV*, pl. XXI, no. 150).

Goumenitsa (Achaia): Δελτ. ix, παρ., 15, fig. 1.
Aigina: Munich Cat., no. 43, pl. 2.

Kraters and Bowls. The tall krater (Fig. 16 A) is almost certainly a shape copied from metalwork (cf. the copper kraters from Mycenae, *Schachtgräber* pl. CLX). It has a slightly ogival profile, a metallic lip, a strongly flanged base, and broad ribbon handles. On the other hand the painting is always in a free style which shows no particular affinities with metallic decoration.

Later Mainland krater-shapes are generally in a pottery technique; but the type which occurs in Cyprus (*e.g.*, *B.M. Cat. I. ii*, C 338, C 340 etc.) must be derived from metal originals such as are indicated by the two fine bronze rims, with ribbon handles, which have been found in Cyprus (one in J. L. Myres, *Catalogue of the Cesnola Collection*, no. 4703; the other in *BSA* xviii, 94-97 and pl. VIII). This origin has already been pointed out by Sir Arthur Evans (*P. of M.* IV. i, 310 and figs. 245, 246).

Bowls of type E (Fig. 16) betray their metallic origin by the ogival profile, the form of the base, and the moulded rim. Bronze bowls of this shape have been found at several sites both in Greece and in Crete, including the following:—

Mainland: Mycenae (tombs excavated by Tsountas, 1887-8): Athens N.M. 2367-2369.

Dendra: Persson, *Royal Tombs at Dendra*, pl. XXXI.

Crete: Zafer Papoura: "Tomb of Tripod Hearth." Evans, *Tombs*, pl. LXXXIX, d.

"Chieftain's Grave," *ibid.*, 53, fig. 52*b*.

Phaistos: *MA* xiv, 544, fig. 28.

Most of these have the knobbed handles which appear on the large clay examples from Kopreza and Thorikos (cf. p. 41 above). Similar handles are also found on other types of metal vessels, such as the inlaid silver cup from Dendra (Persson, *Royal Tombs at Dendra*, pl. I) and a bronze dish from Zafer Papoura (Evans, *Tombs*, pl. XC, Fig. 100*g*).

Somewhat similarly knobbed bronze handles are quite common in the 6th century B.C. (*e.g.*, from the Athenian Acropolis, Δελτ. i, παρ., 21-22 with figs.).

Pyxis. The straight-sided pyxis which replaces the early L.H. III alabastron shows unmistakable metallic affinities. The rectilinear profile is foreign to pottery technique, there is a flat-moulded lip, and the base is generally formed like that of a beaten metal pot. Pyxides scarcely ever have any but the simplest linear decoration on the shoulder, which also is probably due to their dependence on metal models.

Piriform jars. Sir Arthur Evans has shown that the large piriform am-

phorae of the Cretan Palace Style borrowed their decorative patterns from metalwork (*P. of M.* IV. i, 299 ff.); their shape, too, is metallic in its ogival profile, its flat lip, and its moulded base.

The small piriform jars (Fig. 19 B) of L.H. III show similar metallic characteristics. The shape seems to have evolved from pots of similar shape which were current in L.H. II, but it suggests continued dependence on metal types until about the middle of the period, when it gradually develops into a more purely ceramic form (cf. p. 44 above). The decoration of the shoulder, as on the pyxis, is almost invariably simple and distinctly linear.

Broad-mouthed jars (Fig. 19 E₁). The metallic characteristics of this type have already been pointed out (p. 46 above). It is a shape that was fairly readily assimilated by the potters and developed into a true ceramic form (Fig. 19 E₂).

Jugs. There is little to add to what has already been said (pp. 47–50) on the metallic origin of early L.H. III jug-types. Examples of the two-handled and three-handled piriform jugs (Fig. 20, A₂, A₃) are sometimes coated all over with paint (e.g., *Prosymna*, fig. 254, no. 666; fig. 402, no. 844; fig. 438, no. 189).

There are also a number of miniature jugs which deserve mention here. They have a roughly globular body and a fairly wide neck, and are coated all over with paint, generally a glossy red. All are of miniature size—seldom more than 10 cms. high. Details of shape in such small pots do not obviously suggest metallic affinities, but the red paint does. The miniature size may indicate that they are simply cheap symbolic substitutes for metal jugs which would be too valuable to use as tomb furniture. There are a few examples from Vourvatsi and other Attic sites, and the type occurs also in tombs in the Argolid (e.g., *Prosymna*, fig. 515, no. 21; fig. 516, nos. 11, 19; *Chamber Tombs*, pl. XXII, no. 9):

Bottle (Fig. 21 A). It is possible that this, too, is a metallic shape, since, as has been remarked (p. 51 above), the decoration is usually like that of stirrup-jars, which have been shown to owe much to metalwork. There is also the evidence of the grey Minyan examples from Attica (cf. p. 51); and the neck of such bottles is sometimes finished with a moulded lip and a ridge where it joins the body. It is further interesting that a tin vessel of a similar shape has been found at Abydos in Egypt (see Ayrton, *Abydos* III, 50 and pl. XVII, and Evans *P. of M.* II, 178 ff.).

Drinking-jars (Fig. 22 C). The chief evidence that this shape was made also in metal is that about half the pottery examples are painted all over. There is usually a moulded lip, and the handle is of the ribbon type. These jars are generally of small size, especially the red-painted examples, which

suggests that, like the small red jugs mentioned above (p. 66), they may have been symbolic substitutes for larger metal vessels.

Other shapes. Finally, imitation of shapes current in metal may account for the occurrence of rare or unique pottery-types, such as the red-painted deep bowl from Pikermi (Pl. 10. 14). A similar instance is a unique jug from Tomb VIII at the Argive Heraeum (*Prosymna*, fig. 404, no. 1095); it has a ribbon handle and a flat rim. A bronze jug of almost identical form was found at Asine (O. Frödin and A. W. Persson, *Asine*, fig. 259).

The foregoing list shows that almost all the pottery-types current in the first half of the L.H. III period owe something to metal originals. Such wholesale imitation of metalwork in pottery (which may be paralleled in seventh century Rhodian and Corinthian wares) indicates the existence of a flourishing and progressive metal industry. The products of this industry are almost completely lost to us. A pot, once broken, can only be thrown away; but a worn-out pan becomes scrap-metal which is melted down and used again. Consequently metal vessels are seldom preserved. The treasures of Mycenae and Knossos have revealed the wealth of metalwork in gold, silver and bronze which existed in the earlier phases of Late Minoan and Late Helladic; and the tombs of Knossos and finds at Mycenae and Tiryns show us something of thirteenth to twelfth century metalwork, mostly in bronze. For the intervening period of at least two centuries, however, we have only the indications afforded by the pottery.

It must be borne in mind that most of the known L.H. III pottery comes from tombs, and so many of the pots which imitate metallic models may have been substitutes made for funeral purposes only; but even so the implications of the above analysis are very great. It appears that during the first half of the L.H. III period the potters introduced scarcely any new pot-types, or even any new decorative patterns, except what they borrowed from the metalworkers. This does not imply that the potters were bad craftsmen. Technically they were very skilful, and indeed could not otherwise have imitated metallic forms as they did; but they were not creative artists.

It was an age in which more attention was paid to technical improvement than to artistic innovation. Of course the two can never be entirely separated; and the attention to technique, to the mechanical rather than the aesthetic side, is accompanied by a growing spirit of restraint which eventually culminated in the almost mathematical aesthetics of Geometric art. It is difficult to know whether to attribute the growth of this new spirit to the importance of metalwork in the L.H. III period, or *vice versa*. Certainly the two are closely interlinked, and perhaps symptomatic of each other.

Metalwork involves and encourages precision; for you can botch a clay jug in the making and it will still hold water; but if a metal jug is not well made it will probably leak. On the other side, craftsmen with a taste for tidiness and clarity of form would perhaps turn to metal rather than pottery to express their ideas.

It seems not unreasonable to see in the Late Helladic period a parallel to the course of material progress in our own eighteenth and nineteenth centuries. In the modern instance an industrial revolution, produced by mechanical discoveries, resulted in increased production and technical improvements, accompanied by a barrenness of artistic invention. The tendency was naturally first apparent in commercial production; but it was reflected in all the practical arts. Soundness of technique almost overwhelmed aesthetic values.

For the Late Helladic Age we have only part of the evidence. The advance in technique and the decline in artistic innovation are apparent; but we can only arrive at the causes of it all by conjecture and deduction. A probable explanation is to be found in increased activity in the metal industry. There is evidence for this in the material remains of L.H. I and II metalwork, and, as outlined above, in L.H. III pottery. There are also some indications of the fame of Mycenaean metalwork outside the Aegean. Vessels of gold and silver, for example, are mentioned as gifts to a 13th century Hittite king (cf. Schachermeyr, *Hethiter u. Achäer*, 34).

An industrial revolution of the kind suggested might well have been brought about by the opening-up of new mining regions by Mycenaean enterprise; and there is indirect evidence to support this hypothesis in the peculiar distribution of L.H. III pottery. Until the second half of the period, Mycenaean pottery is not at all widespread in Mainland Greece; finds of pottery of the first half of L.H. III are almost confined to the Argolid and Corinthia, Southern Boiotia, parts of Laconia, Attica and Aigina. Except for the last two these are all regions where the Creto-Mycenaean culture was already established in L.H. I and II. In Rhodes and Cyprus, however, Mycenaean pottery is already frequent in the early phases of L.H. III.

The exact nature of Mycenaean relations with these islands cannot yet be decided with certainty; but whether the Mycenaean pottery found there is locally made or imported, its commonness implies that intercourse was considerable. Cyprus may well have been colonised for the sake of its mineral wealth; and indeed it is now proved that Cypriot mines were worked in the Bronze Age by discoveries at Apliki dating from Late Cypriote II-III (*v. JHS* 1939, 208). Greece could not at that date hold Cyprus as a colony, or even carry on a safe trade with Cyprus, without holding Rhodes too, since

it lies on the sea-route between the two. Thus the evidence of an early Mycenaean colonisation of Rhodes fits our hypothesis well.

Attica and Aigina, too, were brought early into the sphere of Mycenaean dominion, and here again the reasons may well have been commercial and economic. Gold, silver and lead were all to be found at Laureion, and Aigina lies on the direct land-and-sea route, *via* Epidauros, between Attica and the Argolid. We have as yet no conclusive evidence that the Laureion mines were worked in the Bronze Age, but Broneer (in *Hesperia* viii, 416) points out that it is quite likely, in view of the large quantities of lead found in the Mycenaean deposits on the north slope of the Acropolis, and the known importance of Thorikos.

Mr. T. J. Dunbabin has suggested to me that Mycenaean expansion to Sicily and Southern Italy may also be connected with the search for metals.

ATTEMPTED CHRONOLOGY.

The foregoing sketch of the development of individual types leads one to attempt to summarise the development of the pottery of the L.H. III period as a whole. Such a summary is only tentative, since there is not always sufficient evidence to show what types are contemporary; and evidence for absolute dating is almost completely lacking.

The period may be said to commence on the cessation of active Minoan influence in Greece. In the periods L.H. I and L.H. II Minoan forms and Minoan designs had been modified by mainland Greek influence, but there comes a point, which for convenience we associate in date with the fall of Knossos, when the Mainland spirit becomes uppermost. In L.H. III Minoan influence in Greece has ceased, and there is a Mainland reaction on Crete—a reaction that had begun in L.H. II. Broadly speaking the Minoan spirit is one of freedom and somewhat florid naturalism, the Helladic of restraint and formalism. Design in the L.H. III period shows a constant development towards the formal and abstract, a tendency which continues almost uninterrupted till the Geometric period. Little is added in L.H. III to the heritage of Minoan design, but Minoan motifs are gradually reduced to strictly stylised forms. L.H. III pottery is on the whole more orderly than imaginative.

The whole L.H. III period may perhaps be divided into four phases.

1. The first phase of L.H. III begins when this formalising tendency becomes the dominant feature. Scarcely any new pottery-types appear. Many of those in use in L.H. II continue, and are reduced to more restrained canons of shape and design. The current shapes are:

Stirrup-jar : this is very rare in L.H. II, but in L.H. III quickly gains great popularity. The globular shape (Fig. 2 A) and the restrained decorative scheme of parallel stripes with a simple pattern on the shoulder quickly become usual, and are already common among the Amarna sherds. The exotic octopus-jars of L.M. I are forgotten, and only reappear in the latest phase of L.H. III (see below).

Kylix : this still shows an affinity in shape with the L.H. II kylix, and frequently imitates metal work (types A, B of Fig. 9). In the painted specimens (Fig. 9 C) free-field decorative schemes are abandoned and patterns always confined between horizontal stripes.

Shallow cup : the L.H. II phiale-shapes remain (Fig. 13, A, B) but the more elaborate decorative patterns disappear.

Squat alabastron : the shape persists (Fig. 18 B) but generally not in its broader and flatter form. The ivy-leaf pattern is simplified or omitted. The straight-sided pyxis appears (Fig. 18 C). (It occurs at Amarna.)

Piriform jar : the foot tends to be narrower than in L.H. II examples (Fig. 19 B); floral shoulder-patterns disappear.

Jugs : the tall 'metallic' ewers of L.H. II persist in a modified form (Fig. 20, A, B), but decoration is less lavish.

Pilgrim-flask : (Fig. 21). This must have become common fairly early in L.H. III, since it is a frequent shape among the Amarna sherds. It is commonest in Cyprus, but in its origins is probably dependent on the L.M. I 'pilgrim-flasks' of Crete (*e.g.*, Bosanquet-Dawkins, *Palaikastro Excavations*, pl. XVIII a). Even earlier connections are suggested by Evans in *P. of M.* II, 178 f. The shape is always rare on the Mainland.

This first phase is not well represented in Attica. The earliest pottery from Vourvatsi belongs to the latter part of it (*e.g.*, some stirrup-jars, some large jugs, the shallow cups nos. 72, 73, the small tankard (Pl. 8. 10), the earlier kylikes, perhaps a few of the small piriform jars). A few pots also from Kopreza (*e.g.*, a large jug, 'Εφ. 'Αρχ. 1895, pl. X, no. 8) and some of the Acropolis sherds, may be assigned to it.

2. The second phase shows a continuation of the tendencies of the first. At the same time certain new types are introduced. The following pottery types were in use:

Stirrup-jar : the globular type continues its evolution in the direction of type B (see p. 18). Probably type D (Fig. 2) belongs to this phase. Shoulder-patterns become more linear. The flat-topped types, E, F, G (Fig. 2 and p. 18) appear. The shoulder-patterns show that these cannot be much later than the Amarna sherds.

Bottle: (Fig. 21 A). This shape is never common. The decoration relates it to stirrup-jars of this phase.

Kylix: type C develops into D. The current unpainted type is F. The Zygouries type (E) may also belong to this period.

Shallow cup: as in phase 1.

Deep cup: the earliest large tankards seem to belong here (*e.g.*, Pl. 8. 13).

Krater: the tall krater (Fig. 16 A) appears. Its origin is discussed on p. 37.

Bowl: the wide-mouthed bowl with an ogival profile occurs (Fig. 16 E), but is never common.

Pyxis: this completely replaces the alabastron.

Piriform jar: similar to those of phase 1.

Amphoroid jar: (Fig. 19 E1). A new shape.

Jugs: the tall, narrow shapes become less common. The broad-bellied type B develops towards type C (Fig. 20).

The second phase is much better represented in Attica than the first. It includes much of the pottery from Vourvatsi, a good deal from the West coast cemeteries (Aliki etc.), from Kopreza, and the contents of the Menidi tomb.

It is noticeable that a number of the new shapes of this phase, including the new stirrup-jar types, the red-painted kylikes, the tankard, and the jars of type E1, appear to be derived from metal prototypes.

3. The third phase is marked by a greater break. There are more new types than in the second phase and all are distinctly ceramic shapes. The types which persist from Phase 2 lose their metallic features. The common types are:—

Stirrup-jar: type B (Fig. 2). Flat-topped types perhaps lasted as late as this, but go out of fashion.

Kylix: the ordinary types become rarer. One-handled types appear (Fig. 10, G, H).

Deep cups: (Fig. 14, C, D). These partly replace kylikes. For their evolution from the kylix type J see p. 37.

Dipper: (Fig. 13 C). Replaces the earlier "phiale" shape.

Krater: the tall type is replaced by a lower shape (Fig. 16 B) with no metallic features.

Bowls: a new type of deep bowl (Fig. 16 C) appears. The type with ogival profile persists.

Pyxis: as before.

Piriform jar: it is probably during this phase that the transition to the squat two-handled jar (Fig. 19 D) begins.

Amphoroid jar: ribbon-handles are replaced by handles of the usual pottery type (Fig. 19 E2). Lidded jar appears (Fig. 19 F).

Jugs: (Fig. 20). Type C, which was a modification of B, is replaced by the broad-necked type D.

Askos: (Fig. 22 A). This shape is not common before now. It was more popular in Attica than elsewhere.

Drinking-jar: (Fig. 22 C). This shape probably appears first in this phase.

We must probably assign a longer time to the third phase than to the others. Not all the new shapes would arise at once—the deep bowl was probably introduced later than the one-handled cups—and changes in the older shapes must have been gradual.

The phase is well represented in the Vourvatsi pottery. It includes also a good deal from the West coast cemeteries, from Kopreza, and from the Acropolis, as well as most of the pots from Spata, Pikermi and Velanideza, and some from Brauron.

4. In the final phase of L.H. III most of the types of phase 3 continue in use but show changes in fabric and decoration. The following points may be noticed:—

Stirrup-jar: this assumes the characteristic features of type C (Fig. 2). To this phase belong certain stirrup-jars with octopus designs (cf. p. 23).

Kylix: this grows rare and disappears.

Deep cups: as in phase 3.

Kraters, Bowls: decoration becomes more formal; later panel-style patterns are in use; some bowls are decorated with one or two stripes only. The wide-mouthed bowl of type E (Fig. 16) assumes a straighter profile.

Pyxis, etc.: double and triple pyxides occur.

Amphoroid jars, Jugs: as in phase 3. Certain changes in general proportions suggest to the eye their relation to Protogeometric shapes. The 'hydria' appears (Fig. 20 E).

This phase is roughly contemporary with the 'Granary Class' of Mycenae. It includes almost all the pottery from the north slope of the Acropolis;¹ also the finds from H. Kosmas, Ligori and the Porto Raphti road, Steiria, and Marathon, with some from Brauron and just a few from Vourvatsi.

F. H. STUBBINGS

¹ The finds from the Mycenaean stairway excavated by Broneer should of course be included.

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Note: The numbers given to the pots from Vourvatsi, Velanideza, Pikermi, Porto Rapti road, are provisional, since these have not yet been catalogued in the Athens Museum.

The numbers prefixed with the abbreviation NM are those of the Inventory of the National Museum, Athens.

THE HOPLITE PHALANX WITH SPECIAL REFERENCE TO THE POEMS OF ARCHILOCHUS AND TYRTAEUS.

(PLATES 18A, 19.)

THE adoption of hoplite tactics and equipment in nearly all the more important Greek lands can be roughly dated by archaeological evidence to the first half of the seventh century and in certain areas within somewhat narrower limits. The momentous change from the essentially long-range fighting of the eighth century involved a single structural alteration in the round shield slung on a telamon which was in vogue, an alteration designed to make it afford the maximum of protection to troops in close formation so long as they stood firm; in the case of flight it became a mere encumbrance and was fairly likely to be thrown away. The change consisted in the substitution for the single central hand-grip previously in use of a central arm-band of metal (πόρπαξ), through which the bearer thrust his arm up to the elbow, and a hand-grip (ἀντιλαβή),¹ at the end of the horizontal diameter and just within the rim, which he grasped with his left hand. The paramount importance of the shield is implied in the statement of Diodorus that the hoplite took his name from it, an indication that in the language of everyday life it was called ὅπλον.² It is obvious, first, that the size of the new model was fixed within comparatively narrow limits, since the radius must be approximately equal to the length of the owner's fore-arm measured from the inside of the elbow to the finger-tips, and, secondly, that its range of movement was extremely restricted.³ Unless exceptionally large, the single-grip shield

¹ Strabo, iii, 3, 6, where the terms are applied to the standard shield of the writer's own day. There is, however, no reason to think that πόρπαξ had changed its meaning since the classical age, or that ἀντιλαβή was not then in use. The meaning of δχανον and ὀχεύς is another matter; *vide infra*, p. 130.

² Diod. Sic. xv, 44, 3. In Attic prose the word occurs in this sense only in Thuc. vii, 75, 5, where it includes the shields of the cavalry. The phrase is lacking in one MS. (C), and is omitted by Hude, who presumably regarded it as a gloss. Aeschylus, however (*S. c. Th.* 315), uses ῥίψοπλον in the sense of ῥίψασπις, a point which will be further discussed below, and Paley is probably right in giving the sense of 'shield' to δπλα in *Hel.* 1375. It is next found in one or two inscriptions of the Hellenistic age, cited in L. and S.⁹, and in Diodorus xvii, 18, 1. It occurs, however, in Xenophon (*περὶ ἱππικῆς* xii, 1), not, indeed, with the specific sense of shield, but of 'protection' or 'protective armour'; which may be the occasion of the explanation in Hesychius:—ὅπλον ἐνδύμα πολεμικόν. This is also its sense in Aen. *Tact.* xxix, 12, where δπλα is defined as περικεφαλᾶς καὶ

ἀσπίδας. In xxiv, 6 it certainly means 'shields'. In xxix, 4 the MS. reading περικεφαλᾶς δπλα, 'protective head-gear', may be correct. If the emendation περικεφαλᾶσαι is adopted, the meaning is 'helmets, shields'.

³ Though I have not measured examples numerous enough to establish an average, 17 inches or very little less appears to be an ordinary measurement for a man of medium height, which gives a diameter of 34 inches for the shield; the proportion to the subject's height in vase-paintings unfortunately cannot be used for precise confirmation. Payne (*NC*, 99) calls attention to a change from a smaller to a larger shield which takes place in the latest phase of proto-Corinthian, *i.e.*, in the third quarter of the seventh century, after which the larger shield is established. The hoplite shield was large; this comes out in Herodotus' account of the Anatolian contingents in Xerxes' host, whose undoubtedly single-grip shields are repeatedly described as small, and in the changes which Iphikrates found necessary in training troops which should be heavy-armed but of more than hoplite mobility (*Diod. Sic.* xv, 44, 2). It is difficult in examining the shields

was easily manoeuvrable, and it could be used to cover practically any part of the owner's person. The hoplite shield gave complete protection only to the left side of the trunk, with consequences when the phalanx went into action which Thucydides has made familiar to everyone.¹

Monuments of the Geometric age shew that the immediate predecessor of the hoplite shield in Greece is the round shield with central hand-grip long current in the Near East and abundantly illustrated on Assyrian monuments from the ninth century onwards.² In Greece examples of shields which are demonstrably of the single-grip type are few. On a Geometric vase from Attica³ (Fig. 1), and a sherd from Chios,⁴ a man extends his shield, shewn in profile, before him at arm's length—an attitude impossible with the hoplite shield. Two bronze figurines from Olympia⁵ represent warriors holding their shields before them by a central hand-grip. In one case the shield is very small; in the other the shield has disappeared, but the handle is extremely large. On a crudely engraved Geometric gem from the sanctuary of Aphaia on Aegina⁶ a man brandishes a large shield, shewn in profile, and threatens a disarmed opponent with a spear. The shield in Geometric vase-painting is generally represented full-face and from the outside, and consequently yields no direct evidence of the existence of a central hand-grip; there are, however, other tests. That not only the round, but the much rarer rectangular shield and the hour-glass or Dipylon, earlier than either and alone represented in the earliest Geometric figure-painting on vases,

to which Payne draws attention to decide how far the varying size depends on the artist's view of the proportions of the human body. Payne himself notes that length of limb is a feature of proto-Corinthian and all early archaic figures (*op. cit.*, 99, n. 1). Thus on the Hymettus amphora the shields clearly indicated as hoplite are too small for their rôle in relation to the total height of the bearers, but only because their legs are preposterously long. The shields in *NC*, 99, fig. 31 are disproportionately large; the figures of the combatants are squat, but the one on the left, naturally the only one whose shield-arm is visible, has an equally disproportionate length of arm which would equal that of Rob Roy. Again, the pattern at which the artist aims must be taken into account; there can be no other motive for the difference in size between the shields on a Middle Corinthian cup reproduced *op. cit.*, pl. 34. 8.

Fortunately we have direct and remarkably complete evidence for the size of hoplite shields in use in the Peloponnese in the seventh and early sixth centuries. A complete shield (which fell to pieces) and fragments of others were found in the first excavation of Olympia, and the metal parts of no fewer than seventeen in the recent researches of the German Institute on the same site (*Ol* iv, 163-4 and *JdI* lii (1937); *Olympiabericht*, 54 ff.). The diameters could be calculated, and ranged from 80 to 100 centimetres—roughly 31 to 39·3 inches. The later finds belong to the early, the others

to the late archaic age; all alike are of Corinthian workmanship. The differences in diameter are not related to the dates. There was therefore no change in the size of the Corinthian shield in this period, and the differences presumably were in the arm measurements of the owners. The outsize of 100 cm. is surprising, even supposing that the Dorian aristocracy of Corinth had an exceptional average of height; alternatively, the ἀντιλαβή may have been of unusual length. Cf. *NC*, 95, fig. 29 C.

¹ v, 71.

² This point was established by Helbig as long ago as 1909 (*ÖJh* xii, 1 ff.), though the evidence on which he principally relied has proved not to be applicable. Further finds of miniature votive terracotta shields have shewn that they continued to be made with single central loops merely, doubtless for suspension, long after hoplite equipment had become universal. This is notably the case with examples found by the Americans at Corinth, many of which date to the sixth century.

³ *AZ* xliii (1885), pl. 8. 1, *CVA Copenhagen* ii, pl. 73. 4 a (Attica), figure immediately in front of ship's stern. Fig. 1a from a new photograph, by the courtesy of the Keeper of the Department of Antiquities, Danish National Museum, Copenhagen.

⁴ *BSA* xxxv, pl. 35, no. 33.

⁵ *Ol* iv, pl. XVI, nos. 242 and 243.

⁶ *Aegina*, Textb., 433, no. 9, pl. 118. 30.



FIG. 1.—ATTIC GEOMETRIC OINOCHOE IN COPENHAGEN.
 (a) from photograph of the Danish National Museum, Copenhagen:
 (b) from *O Jh* 1909, 55, fig. 40.

were carried on telamons is clear from the fact that both hands of the owner are sometimes shewn free,¹ while the shield remains in position covering the trunk, and the commonest position of the arms with both elbows visible shews that neither can be thrust through a porpax. The telamon permitted the use in action of two spears, primarily for throwing, though at close quarters one could of course be used for a thrust, and on Attic Geometric vases two are the regular number; occasionally there are three.² In the rare Geometric battle scenes which we possess one has sometimes been thrown, and the combatant's spare hand already brandishes his sword.³ With the hoplite shield a single (thrusting) spear is invariable, as almost innumerable vase-paintings testify, as Plato expressly asserts⁴ and as the nature of the case dictates. Again, hoplite equipment as we find it depicted in detail on an enormous number of monuments consists of a complex of inter-related articles no one of which appears on any monument earlier than the seventh century, *viz.*, plate corslet, metal helmet almost invariably Corinthian and greaves. Most vital of all after the shield is the plate corslet, an indispensable compensation for the manoeuvrability of the telamon shield and for the protection which it afforded in retreat. The owner of the hoplite shield probably hastened to divest himself of it if once he turned to flee; as the famous admonition of the Spartan mother shews, the warrior who came home, dead or alive, with his shield could *ipso facto* be presumed not to have turned his back on the foe. No Geometric bronze figurine wears a corslet, nor does any vase-painting render the sharply offset rim which forms the plate corslet's lower edge; it must however be admitted that the first of these facts has no evidential value and the second extremely little, for in Geometric art the male body is all but invariably represented as nude, a convention partially maintained in the proto-Corinthian and proto-Attic styles which ensue. None the less, as in the latest Geometric art the helmet is occasionally distinguished from the head it encloses, we might expect that if the plate corslet had been in wear, its very prominent rim would have figured in one example or another. More satisfactory, however, is the evidence of Geometric graves. Usage in the matter of grave-goods is extremely fluctuating in this period; at Athens, however, a substantial number of graves contained swords and other weapons. The occupants of these graves must surely have worn their whole equipment. The best recorded instance is one in the Dipylon cemetery whose excavation was observed by Brückner and Pernice⁵; it contained remains of the customary

¹ See, *e.g.*, Köster, *Das antike Seewesen*, fig. 21, between pp. 86 and 87.

² In non-Attic Geometric art the single spear sometimes occurs, *e.g.*, on the gem from the Aphaia sanctuary cited above, on a gem from Siphnos with an engraving of an armed warrior (*JHS* lviii, 1938, 232, fig. 10)

and on a sherd from the Argolid (*JdI* xiv, 86, fig. 44).

³ *AZ l.c.*, no. 2.

⁴ *Euthyd.* 299 C.

⁵ *AM* xviii (1893), 108. Grave v; fragmentary iron swords were also found in iv and xvii.

two spears (which also occur in other Attic graves) and a sword and dagger. Neither here nor in any other grave of this class was any vestige found of metal corslet, greaves or helmet of metal; a small bronze tube however has been plausibly interpreted by Kukahn¹ as the crest-holder of a leather helmet.

At Halos in Thessaly a tumulus was found to cover sixteen pyre-graves, of which ten belonged to men. With each iron weapons were associated, and in spite of one or two misplacements it seems certain that each man was equipped with one spear, one sword and one or more knives. There was only a scrap or two of bronze, and no single metal fragment that could be ascribed to a metal corslet or greaves.²

The shapes of Geometric helmets vary considerably, and need not detain us here. The evidence of figurines, mainly bronzes, shews that almost without exception the face was left entirely exposed; the structure of these helmets looks completely non-metallic. On the other hand, a very small number of examples has completely developed cheek-pieces;³ such a helmet must be of metal, or at least very thoroughly plated. The extant examples, however, have tall crests, and are therefore not Corinthian helmets, whose characteristic feature is a tooth-brush ridge-crest which follows the profile of the helmet, and ends in a long tail behind. As the examples come from Olympia and Delphi,⁴ nothing is known of their ultimate provenance; but they resemble the 'Attic' helmet of later days.

Two remarkable monuments from Tiryns, votive terracotta shields decorated with figure subjects, found with other discarded votives of the Geometric temple, may fairly be taken to represent typical Greek equipment at the very end of the Geometric period. They are still unpublished, and photographs of the parts most relevant to this inquiry reached me only when this article was in page proof. They are reproduced on Pl. 18 A; the partial description which they have enabled me to give is necessarily relegated to an appendix, for which see p. 133. The equipment is still Geometric, and it is a fair inference that at the date of the shields (last quarter of the eighth century) hoplite equipment had not been adopted in the Argolid.

When we turn to the greatest of the Early Archaic schools of Greek vase-painting—proto-Corinthian—we find that in its earliest battle-piece, dated to the first quarter of the seventh century, the new model already finds a place, while on an approximately contemporary proto-Attic vase of *c.* 680

¹ *Der griechische Helm*, 8.

² *BSA* xviii, 25 ff. The use of the single spear is noteworthy.

³ There are at least two examples of Geometric bronze figurines wearing helmets (not Corinthian)

with cheek-pieces, and one of a helmet-maker producing an example. Lamb, *G and R Bronzes*, pl. 15 *c* and *d*, and *AJA* xlviii (1944), 1-2, figs. 1-4.

⁴ *Ol* iv, no. 247; *Fouilles de Delphes* v, Pl. 1. 7.

it is adhered to consistently in a series of combatant pairs. Farther, proto-Corinthian of the finest period—*c.* 650–40—succeeds in depicting the hoplite phalanx going into action. The outstanding example is furnished by the Chigi vase,¹ which, admitted as it is to furnish an indubitable representation of hoplite forces and being moreover the only relevant monument which is generally known, has often been cited as the earliest reliable evidence for the new armature (Fig. 2). It falls very shortly after 650, and though it is in fact the last term of a series which begins nearly half a century earlier, its clear, detailed and consistent representation makes it a convenient point from which to start our investigation. It may at first sight appear surprising that the



FIG. 2.—THE CHIGI VASE.

From *Antike Denkmäler* ii, pl. 44.

moment selected is not that of actually joining battle, but that which immediately precedes it; no blow has been struck, and last-minute preparations are still in progress. The figure to which the eye is inevitably first drawn is that of the flute-player in his flaming purple tunic. Totally unarmed, he will presently withdraw, but for a moment yet he dominates the scene, blowing his flutes to the skies and tense with effort. He is a figure of some historical interest, for taken in conjunction with a similar figure on an earlier vase presently to be cited,² he supplements the information given by Thucydides (v, 70) in his description of the battle of Mantinea. According to this account the flute-player who piped the troops into action was a purely

¹ *Ant. Denk.* ii, pl. 44; *VS*, pl. 39; Pfuhl, *MuZ*, 59; ² *Infra*, p. 93, fig. 7.
Payne, *Protokorinthische Vasenmalerei*, pls. 28–9.

Laconian institution, and his function was not to kindle their spirit, but to restrain and steady their advance.¹ Of the other Peloponnesian troops under the command of Agis Thucydides says nothing, but the Argives on the Athenian side, like their allies, had no pipers. As all later sources follow Thucydides in limiting the institution to the Lacedaemonians, except Polybius (iv, 20, 6), who ascribes it to τοὺς παλαιούς Κρητῶν καὶ Λακεδαιμονίων, it must be assumed that for the fifth or later fifth century this is the case. The evidence of the two proto-Corinthian vases, however, shews that in the seventh century it was common to the Corinthians. Aulus Gellius (i, 11) states that the Cretans went into battle to the sound of the kithara, Pausanias (iii, 17, 5) says that the Lacedaemonians used flute, lyre and kithara; unfortunately neither names his source.² It seems not unlikely that originally some, perhaps all the Dorian communities in the Peloponnese as well as Crete used music as an aid to enforce the new drill.³ The absence of the military piper alike from Homer and from Attic Geometric vase-painting, virtually our only sources for Greek warfare in the Early Iron Age, suggests that music had no place in the discipline of the older type.⁴

To return to the Chigi vase: each side forms a hoplite phalanx, pure and unadulterated; every article of hoplite equipment is plainly represented and nothing alien to it, and the tactics—hand-to-hand fighting with the spear—are purely hoplite. Of the ranks on the point of engaging each man holds his spear above his head, nearly horizontal but with a slight downward tilt,

¹ To this accompaniment the ἐμβατήριον must have been sung, and an early example clearly alludes to the hoplite with his single spear—λαοὶ μὲν ἱππὺν προβάλεσθε, δόρυ δ' ἐυτόλμως πάλλοντες (Carmina Popularea, Bergk⁴ Tyr. 15, Diehl 18).

² Besides Thucydides and the other sources named above, the following ancient authors ascribe the practice to the Lacedaemonians: Aristotle fr. 244 (quoted by Aulus Gellius *l.c.*); Cic. *Tusc.* ii, 16, 37; Val. Max. ii, 6, 2; Plut. *Vit. Lyc.*, 21.

³ The function ascribed by Thuc. to the αὐλός contrasts oddly with its orgiastic character and with practically everything said about it by the ancients; see especially Arist. *Pol.* 1341 b. The bagpipe, however, can produce excellent marching music, though that is not its primary function.

⁴ The αὐλός is mentioned only twice in Homer, once as a Trojan instrument (K 13), in a book which there is good reason to think a post-Odyssean addition to the *Iliad*, once (Σ 495) in the marriage scene on the shield of Achilles, *i.e.*, it is not associated with the Greek heros at all, though as a characteristically Anatolian instrument it must have been familiar to the Greeks of Ionia, in use alike by their Lydian and their Phrygian neighbours. On two Attic Late Geometric vases (*CVA Berlin* i, pl. 1, 2, A 1; *Mon. Piot* xxxvi, 27 ff.) double flute and lyre accompany a dance; cf. R. S. Young, *AJA* 1939, 715. The lyre, current in Minoan Crete, as the sarcophagus from Hagia Triada shews, appears with a varying number of

strings on Geometric vases and also has its place in epic. The use of the σάλπιγξ, the only instrument employed by the non-Dorian armies of Greece, probably also dates from the introduction of the hoplite phalanx. It does not occur in Geometric vase-painting; the noun, which is of unknown derivation, occurs only once in Homer, in a simile (Σ 219), and the verb is used once of the noise produced by heaven when the Olympians meet in battle (Φ 388). That is to say, it is not associated with the heros at all. Yet like the αὐλός it was probably familiar to the Greeks of Ionia, for though later Greece ascribed its invention to the Etruscans, they almost certainly derived their first knowledge of it from Anatolia. A remarkable bronze figurine from Mylasa (*JHS* xxix, 1909, 197, fig. 4) represents a trumpeter giving the signal, probably on the field of battle, for he has the fool's cap helmet of the Tiryns shields and the charioteer figurines from Olympia (*e.g.*, *Ol* iv, no. 249 = Lamb, pl. 16 a). This fact and the general resemblance of the figures in technique suggests that the Carian is of about the same date.

An interesting graffito (5th cent.?) at Abydos records the names of Ὀνάσιμος Σαλαμίνιος and Θεμιστοκλῆς αὐλητής, apparently mercenaries, possibly part of a Cretan garrison established in the Memnoneion, members of which have also left their graffiti. See Perdrizet and Lefebvre, *Les graffites grecs du Memnoneion d'Abydos*, no. 531; cf. p. ix.

poised ready, not for a throw, but for a thrust at the exposed throat of an opponent. This is the regular and obvious method of attack, depicted on scores of Greek vases; it is sufficient to quote the Rhodian-Milesian Euphorbos plate, the Chalcidian vase with the fight for the body of Achilles and the Exekias amphora with the combat of Heracles and Geryon;¹ in no case is a cast in question. When only one hand can be used, only a downward thrust can develop any force, and if the thrust is underhand, it is aimed at the other vital region, which is left unprotected below the lower edge of the corslet, and generally for some special reason, as will be illustrated presently. Each combatant has a hoplite shield; if the face is towards the spectator, the blazon is shewn, if the inside, the *πόρπας* and *ἀντιλαβή* with grasping hand are plainly rendered. The plate corslet, the Corinthian helmet and metal greaves are in evidence. Finally, each man carries a single spear only. It is true that over the heads of the opposed groups of combatants to right of the flute-player more are in the air, purporting to be carried at the slope, but there is no one to carry them, and in the air they remain. This is demonstrated by the group of four immediately in front of the flute-player, the inner side of whose shields is turned towards the spectator; in every case the left hand is visible, grasping the *ἀντιλαβή* of the shield and nothing else. Each man's spear is held aloft and nearly horizontal, necessarily in the right hand, which in the case of the nearest man is also visible. Four spear-heads appear in white on the black band which frames the picture above. The five men of the opposing group also hold their spears aloft and nearly level; three spear-heads are visible in the space between the opposing lines and at the back two shafts are held on high by the last two men of the group. Above them are five 'ghost' spears; four spear-heads appear in white on the black band already mentioned, and one in black in the field. As the numbers of the ghost spears and of the combatants are the same, the artist presumably intended to indicate that each man had a second spear in reserve, carried by his servant,² but at the same time to suggest by the extra spears the presence of a larger body of troops than he could depict without marring the clarity of his composition, a device which is completely successful. Ἐφριξεν δὲ μάχη φθισίμβροτος ἐγγείησι|μακρῆς ἃς εἶχον ταμεσίχροας.

¹ Pfuhl, *MuZ*, 117, 163, 226.

² Each of the men still arming has two spears with small loops attached to the shafts whose purpose is obscure. They should be throwing loops, like that on the Siana cup in the B.M. (B 380, *JHS* 1884, pl. 43, CV ii III H e, pl. 8. 1), through which the warrior has thrust two fingers in the act of getting the spear into position for a cast. The warrior is a heroic figure equipped in the usual inconsistent manner, with a Boeotian arranged as a hoplite shield and a skin draped over his corslet; it is therefore quite appropriate that

he should be armed with the Homeric throwing spear. No such explanation applies to the arming hoplites of the Chigi vase. Helbig has shown however (*Mém. de l'Ac. des Inscriptions* xxxvii, 175 ff.) that hoplites on early vases are often accompanied by a mounted squire or groom, who sometimes leads a spare horse and carries one or more hoplite spears. (Cf. *SBBayAkW*. 1911, pl. II). Extra spears, especially of the long thrusting type, could be more easily carried on horseback if loops were attached.

An aryballos in the Berlin museum¹ gives a somewhat earlier version of the same subject, *viz.*, the encounter of two hoplite forces (Fig. 3). The date is probably about 650. As on the Chigi vase, the central point of the composition is the gap between the confronted lines, and this is not filled, as it is on the Chigi vase, by the heads of the opposing spears. Starting at the back of the vase under the handle and following the composition from left to right, we find four men of the 'Left' army advancing against five of the 'Right', then three of the Left against three of the Right. Beyond these, three of the Left have attempted to break the Right line, but two, disabled, are already



FIG. 3.—ARYBALLOS IN BERLIN.

From Johansen, *Les Vases Sicyoniens* (Librairie Ancienne Edouard Champion), pl. 32, 1 d and e.

on their knees, and the third is in retreat, half turning as he goes to attack his pursuer. The latter aims his spear for a downward thrust, seeking an exposed region below the level of the corslet. The wounded men are placed one to the right, the other to the left, of this pair; the latter is for the moment unheeded, the former receives the *coup de grâce* in the back of the neck, above corslet level, by a spear-thrust from the last man of the Right. This group represents the only incident in the whole composition; moreover it has a structural unity of a pedimental type which is entirely lacking in the composition as a whole. It might be expected to form the central group; in fact its position is insignificant, mainly at the back of the vase. Owing to the

¹ *JdI* xxi (1906), pl. II; Pfuhl, *MuZ*, iii 58; Johansen, *VS*, pl. XXXII.

fading of the paint, the spears, with one exception, have disappeared, and their action can be inferred only from the position of the hand and arm of the owner. The exception is the spear of the third man of the second Left group, which is held underhand and is preserved where it crosses his body. The spears of all the other marching men are held aloft and horizontal; there is no indication that any man had a second spear and no space for ghost spears. There are ten combatants on each side. All alike wear Corinthian helmets; it is again owing to the fading of the red paint that some of them appear to be crestless. All the men have greaves, all whose bodies are even partially visible have chitons, and the left-hand man of each group of the Left, *i.e.*, the only men in the composition whose trunks are visible, have corslets. Some whose busts are partly visible have an indication of the border of the chiton but not of the corslet. None the less, the corslets are certainly to be inferred; the space available to represent them is minute, nor is their absence the only omission of a vital item. In the whole proto-Corinthian battle series, including that of the Chigi vase itself, there is no single representation of a weapon so important as the sword or dagger which every man must have carried.

The shields all have blazons—flying birds, bulls' heads, a lion's head; is it accident that the blazon of one of the kneeling wounded is $\pi\rho\omega\varsigma$ the squatter? A remarkable feature of the drawing is that the shields of the marching men of the left are shewn in profile, and the appropriate fraction of the blazon meticulously represented. There is no similar example of drawing in perspective in the whole range of proto-Corinthian vase-painting; even on the Chigi vase the shields are represented as flat circles, whether the inner or the outer face is shewn. On the alternating groups of shields full-face and in profile the artist has to rely for variety, for both parties in both groups advance at the same pace, their legs forming a pattern of singular regularity. Despite the perfection of the drawing, there is something stiff and experimental about the composition, and this is in fact the first attempt in proto-Corinthian vase-painting to make a subject of two armies without even an officer to break the monotony. It is interesting to note the various means by which the subtler artist of the Chigi vase succeeds in vivifying the phalanx—the supernumerary spears, the group still arming on the left, which gives numerical preponderance to that side, the front ranks marching, the rearmost men on each side running to their places, above all, the galvanising energy of that non-combatant functionary the flute-player. It is noteworthy that the Chigi artist ignores the progress in perspective noted on the Berlin aryballos, an advance more probably due to a new trend in contemporary free painting than to the development of vase-painting.

Though the problem of presenting the clash, imminent or actual, of two hoplite armies was first solved in the grand manner on the Berlin and Chigi vases, it had been attempted much earlier in both proto-Corinthian and proto-Attic vase-painting. We may begin with the Attic examples, and consider first the Hymettus amphora in Berlin (Fig. 4).¹ Unlike proto-Attic ware in its immediately succeeding phase, this vase shews remarkably few traces of proto-Corinthian influence, and what there is is exhibited in the accessories and not in the figure subjects. A point of importance in our investigation is that there is no hint in any part of the design that an epic or heroic scene is depicted; the subject is treated with the literalism characteristic of battle-scenes in Late Geometric Attic vases. On the main zone two phalanxes



FIG. 4.—THE HYMETTUS AMPHORA (DETAILS).

From *CVA Berlin* i, pls. 43, 1 and 44, 2.

which have engaged each other are represented by five pairs of combatants augmented by a pair in each of the neck-panels, and there is no attempt to suggest the continuity of the battle line. The surface of the vase is unfortunately in bad condition, two pairs of combatants having virtually disappeared so far as reproduction is concerned; much, however, which is not discernible in the plates has been visible to the editors, on whose descriptions as well as on the reproductions the following account is based. All the fourteen combatants have greaves laced up the back and wear one and the same type of helmet, somewhat inaccurately described by Furtwängler as Corinthian.² It is, in fact, 'Attic' with a fore-and-aft crest, stilted and overhanging the face in front. It is true that the stilt is exceptionally low, but this is because the artist

¹ *CVA Berlin* i, p. 34, pls. 43 and 44; first published *JdI* ii, (1887), pl. V. See *BSA* xxxv, 188 for a discussion of the vase by J. M. Cook, whose dating I

follow in preference to that of the German editors, Eilmann and Gebauer.

² *Berliner Vasensammlung, Beschreibung*, no. 56.

had great difficulty in fitting his figures, which have abnormally long legs, into the allotted space. In the neck panels the stilts of two of the crests have been suppressed altogether, but the crests themselves retain their characteristic form.

In no case is any indication of chiton or corslet mentioned in the description, but in three cases, one verifiable in the reproduction, a girdle is reserved in the silhouette of the body.¹ In other respects each figure has the regular hoplite equipment of helmet, greaves and shield, single spear and sword. Most of the combats are spear duels, but two—one in the main zone, one in a neck-panel—are fought with sword against spear; each of the two sword-strokes is a slash. The enormous blade of the neck-panel has no counterpart *in corpore* (which may of course be due to accident) later than the Geometric age, and not many in art. We may compare for the Late Geometric period the dead man's sword suspended over his bier in a prothesis scene on an amphora in the Benaki Museum in Athens (Pl. 19) and for an example in proto-Corinthian vase-painting an aryballos on which the abduction of Helen by Theseus and Peirithoos is represented.² The shields are all round. Several have their inner face turned towards the spectator, and of these at least two are sufficiently well preserved to shew both *πόρπαξ* and *ἀντιλαβή*. Those whose outer face is visible have blazons, in one case a Boeotian shield, in another a horse. Blazons are not absolutely new. In late Geometric vase-painting the round shield not infrequently has a conventional design, generally a large rosette or petal pattern filling the whole field; a very few of the latest have true blazons. Among these are the shields of the Benaki amphora just referred to, whose blazons include a Boeotian shield and a horse, both of which we have found on the Hymettus amphora.

It is tempting to connect the remarks of Herodotus (i, 171) on *ὄχανα*, *σημήϊα* and a new method of attaching helmet crests with the hoplite shield and the Corinthian helmet; but apart from the fact that we have not yet considered the precise meaning of *ὄχανον*, this evidence shews that blazons preceded the Corinthian helmet and the rest of the hoplite equipment. The helmets on the Benaki amphora are of the regular Late Geometric type, which leave the face exposed and have a scanty plume floating from the very top; there is no indication of greaves, and each warrior carries a pair of spears, which precludes the hoplite shield. Blazons therefore came into use earlier than hoplite equipment; as they have no structural significance, there is no reason why they should not. If they were indeed Carian in origin, they may have been a sight familiar to the Greeks well before the end of the eighth century.

¹ Cf. the bronze figurine of a warrior from Olympia, *AM* xxxi (1906), pl. XVIII, another from Delphi, Lamb, *G and R Bronzes*, pl. XXI b, and the Boeotian figurine of Mantiklos, *ibid.*, pl. XX c, and Penthesilea on Shield A

from Tiryns. It is possible that we have in this article the zoster of epic. See further p. 135, n. 3.

² Johansen, *VS* pl. XXII, 1 c.

The Benaki amphora cannot well be dated more than a very few years before 700, though there is no reason to bring it below that date. The coincidence of two of the shield blazons suggests that no long interval separates it from the Hymettus amphora; the latter therefore (unless the Geometric style persisted for some little time side by side with the proto-Attic, yet uncontaminated by it) must indeed come some little way down in the seventh century, but should perhaps be dated rather earlier than 680. The proposal of the German editors however to put it back into the closing years of the eighth century, based only on the curious method of the potter who built up his structure by means of leaden clamps, seems unwarranted.

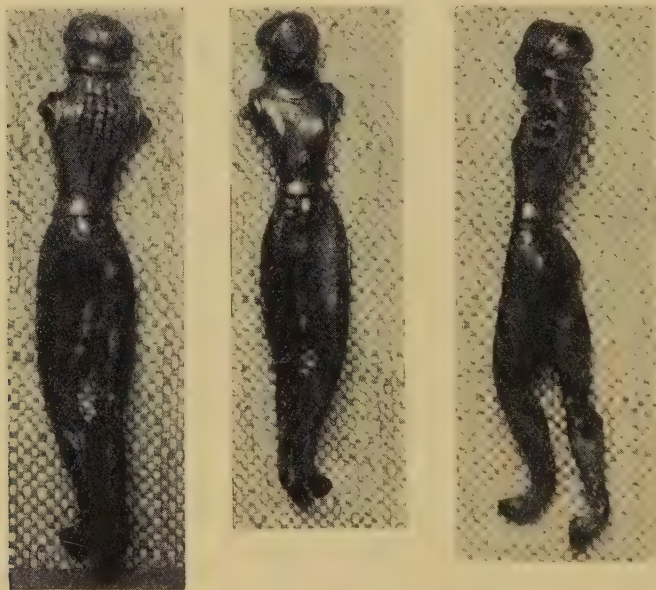


FIG. 5.—SILVER-GILT FIGURE IN CHIOS.

The two combatants in one of the neck-panels of the Hymettus amphora have on each thigh a spiral in thick, light-coloured paint. Incised spirals occur fairly often on the thighs of heros in b.f. vase-painting, on Corinthian pinakes and vases, and especially on Attic vases,¹ and are generally taken to represent an experimental piece of armour which did not survive into the classic age as part of hoplite equipment, *viz.*, the *παράμηριδιον* or thigh-guard,

¹ For *παράμηριδια* in b.f. see H. R. W. Smith, *CVA San Francisco*, p. 27, pl. 8. For pinakes see *Ant. Denk.* ii, pl. 23. 9 b and 40. 2 a; for an Attic example the amphora of the Leagros group in Naples on which the rape of Antiope by Theseus and Peirithoos is depicted, *MA* xxii, pls. 58–9. Theseus wears *παράμηριδια*,

whose rectangular edge saves the spirals from any suspicion of being merely a fantastic convention for muscles. Antiope also wears them as well as greaves, the black of the metal in both cases contrasting with the white of her flesh.

a greave-like plate of bronze worn frontally. There is no reason to interpret the spirals of the Hymettus amphora in any other way, though they are considerably earlier than any other representation of the thigh-guard in vase-painting. The next in date occurs about a hundred years later, on a fragment of a moulded pithos from Sparta,¹ where it is worn by a hoplite and rendered in a much more realistic manner. There are no spirals, and the guard seems to consist of two plates laced together on either side of the thigh. From this time onwards it occurs only in heroic scenes and is doubtless, like the Boeotian shield in similar circumstances, a romantic archaism; but on the Hymettus amphora it can only represent an article in contemporary use. One actual παραμηρίδιον is known from Olympia;² it is archaic, but cannot be dated more precisely. A small silver figurine from Chios (Fig. 5)³ representing a warrior whose armour and chiton are gilded is shewn by the gilding preserved on one thigh to have had παραμηρίδια.

Another proto-Attic effort to represent the hoplite phalanx occurs on a support for a *deinos* found in Aigina and now in Berlin (Fig. 6).⁴ In the upper zone two armies, represented by an attacking force of seven on the left and an opposing force of five on the right, are on the point of engaging. All alike have greaves and round shields, the inner face of which is shewn by the Left force, who all grasp the ἀντιλαβή and threaten with a single spear. Of the five shields on the other side whose outer face is shewn three can be seen to have designs: the whirl pattern, which persists as a shield device throughout proto-Corinthian vase-painting and after, the rosette and one whose form cannot be determined. All the combatants are to be thought of as having Corinthian helmets, for all have the appropriate crest, but in one case only—that of an attacker—is the face clearly shewn to be protected.

Though the Left force is divided into two groups, of five and two respectively, and the Right into groups of four and one, it is certain that only two fighting units are represented. Two of the Right carry two spears, the only identifiable trait inconsistent with hoplite equipment; it may be a mere inadvertence on the part of a draughtsman bred in the Geometric tradition, or it may stress the hoplite's need, referred to above, of a reserve spear. The style looks rather earlier than that of the Hymettus amphora; it is somewhat akin to that of a plaque in Athens⁵ on which part of a ship

¹ *AO* pls. 15–6. Wace is inclined (*BSA* xii, 292) to regard them as of leather, bound with metal, as the lacing indeed suggests; but the new publication of the Hymettus amphora exhibits laced greaves, which are certainly metallic.

² *Ol* iv, pl. 60, no. 996.

³ From photographs by Mrs. Wade-Gery, who also kindly supplied the particulars.

⁴ *CVA Berlin* i, pls. 30. 1–2 and 34. 2; p. 23.

⁵ *BSA* xxxv, pl. 40 b. For the sake of completeness a fragment of another support in the Aigina group in Berlin may be mentioned (*CVA Berlin* i, pls. 28–9, text p. 23) which is somewhat but not much later in appearance. Four exceedingly fragmentary figures survive of which one pair is engaged in a spear-duel. The figures wear greaves, their spears, both used overhand, are single, and the attitude is 'hoplite'. The other pair is engaged in a sword duel; one Corinthian

survives; besides the unarmed steersman it carries five warriors who are equipped with large round shields and two spears apiece and wear cheek-piece helmets with Attic crests. There is nothing to indicate that they are hoplites.

One more early example of the hoplite shield in Attic vase-painting is entirely in the Geometric tradition and therefore cannot be classed as proto-Attic, though it belongs to the second quarter of the seventh century. This



FIG. 6.—PROTO-ATTIC STAND IN BERLIN (DETAILS).

From *CVA Berlin* i, Pls. 30, 1-2 and 34, 2.

is a roughly executed pyxis found in the cemetery at Phaleron and now in the National Museum at Athens,¹ one of a series in which the Geometric silhouette style persists and the use of incision and red paint is eschewed. The subject is a later version of a subject found in the Late Geometric repertory; we have already encountered it on the sherd from Chios cited above (p. 77), on

helmet is preserved, and the ἀντιλαβή of both shields. The drawing is singularly unintelligent, but there can be no doubt that hoplites are intended.

¹ *Ἀρχ. Δελτ.* ii (1916), 35, fig. 29; *VS*, pl. 24, 1 b; cf. *AJA* xlvii (1942), 39 and fig. 21, p. 37.

which a warrior with a single-grip shield, wearing a helmet with a fore-and-aft crest, confronts a lion. On the pyxis the warrior wears a Corinthian helmet and extends before him a hoplite shield with unmistakable *πόρπαξ* and *ἀντιλαβή*; he is accompanied by dogs. This is perhaps the latest appearance in Greek, or at all events in Attic, vase-painting of the lion-slaying hero of the Near East, anonymous so far as Greece is concerned; no one will wish to interpret this group as Heracles and the Nemean lion. It is possible, however, that the *motif*, since it survived well into the seventh century and was popular enough to figure on the small cheap vases of a children's cemetery, may have played a part in the creation of that exploit. It was certainly not, as has sometimes been argued, based on any tradition of actual lion-hunting in Greece; there is no evidence that there ever were any lions. In proto-Corinthian art the subject is secularised and rationalised, for on an aryballos of the second quarter of the seventh century we find a sensational but reasonably conceived scene in which two lions in the act of devouring an ox are attacked by two hunters armed with spears (thrusting and throwing) and an archer.¹ The treatment may be based on that of the quite realistic boar-hunt, exhibited in a much simpler form on a contemporary aryballos.²

Independent evidence for the nature of Attic armour between 700 or rather earlier and c. 640 comes from a pit of discarded votives discovered in the course of the American excavations in the Agora.³ The material, which covers a period extending from the last years of the eighth century to c. 640, but of which much the greater part belongs to the second quarter of the seventh century, includes about thirty-three miniature votive terracotta shields. They were in an extremely fragmentary condition; but it could be seen that some had *πόρπαξ* and *ἀντιλαβή*, others a single loop or strap, and it was possible so far to reconstitute thirteen as to determine the category to which they belonged. Nine were hoplite shields; it does not, however, follow that the remaining four were intended to represent the single-grip type, for single loops, certainly for the purpose of suspension only, are found on similar votives of the sixth century from Corinth.⁴ One of the single-loop examples from the Agora appears from the style of its blazon (horse and rider) to be the latest of the series; and though a single shield-handle need not necessarily be central, provided that it lies along a diameter, it could not possibly form part of a chord near the circumference, as happens on another of the specimens from the Agora. The date assigned to these shields is based primarily on the ceramic context in which they were found, but a second test is available.

¹ *VS*, pl. XXIX, 2 *b*. The subject recurs on the Chigi vase, *op. cit.* pl. XL.

² *Ibid.*, pl. XXIX, 1 *b*.

³ *Hesperia* ii (1933), 609 ff.

⁴ *AJA* xxxv (1931), 27 ff.

Very much the greater number has polychrome decoration in white, red, yellow and a peculiar bluish-green; generally the whole surface is first covered by a white slip. This style does not appear before the second quarter of the seventh century; none of these colours is used by vase-painters in either the Geometric or the Transitional style, and the nearest approach to white is a very pale brown, which is freely employed on the Hymettus amphora,¹ *e.g.*, for the spirals on the thighs of two of the combatants. White appears first with the Black and White proto-Attic style *c.* 675; this is one item of the evidence on which the Hymettus amphora—and therefore the adoption of hoplite armour at Athens—is dated rather earlier. On the other hand the new institution should not on the evidence of the Agora shields be put much higher. One of the partially reconstructed specimens² has no slip, and is decorated solely with the black-glaze paint of the Geometric style; moreover, it illustrates a well-known type of single-grip shield, that with an omphalos and concentric circles in relief, which has a considerable range in the Near East and is represented on certain Greek sites by miniature votives.³ Omphalos and circles are in this case rendered merely by paint. The central loop of this specimen has been preserved; as part of the circumference is missing, it is not possible to prove directly that there was no hand-grip, but in fact the omphalos, quite apart from its foreign origin, is alien to the hoplite shield, its function being to provide protection without contact for the hand which grasped the central handle. On this evidence, then, the single-grip shield was current in Attica as late as the closing years of the eighth century, but had been superseded by hoplite equipment before 675. It is interesting that the change should take place so near the earliest established date in Attic history, the highest to which the list of the annual archons goes back; it would seem that the consummation of the political revolution and the reorganisation of the army were approximately contemporary, as is natural enough.

Before returning to the survey of proto-Corinthian battle-scenes we may examine some evidence from Sparta. The lead figurines of warriors from the sanctuary of Artemis Orthia add general confirmation of the accuracy of the date already indicated. The oldest were found, though sparsely, in the latest Geometric stratum; none of these specimens is reproduced in the publication. That part of the series which runs concurrently with Laconian I pottery—*i.e.*, from *c.* 700 to *c.* 635, in which they are pretty numerous—has almost without exception hoplite equipment so far as it can be checked. The body

¹ It is consistently called white by the editors of *CVA Berlin* i, but it is plain from the descriptions of Furtwängler and Cook cited above that this is only an approximate description.

² *Hesperia* ii, 113, fig. 80, no. 288.

³ From the citadel of Ialysos (*Clara Rhodos* i. 1928, 72 ff.) and from Praisos (*BSA* viii, 258; cf. pl. X, where, however, no shield of this type is reproduced).

is almost invariably masked by the shield, but greaves and the Corinthian helmet are all but universal. There is one conceivably pre-hoplite figure (40, pl. CLXXXIII, 8), from the stratum of Lead I (= Laconian I), which carries the shield with concentric circle and omphalos; the legs are too damaged to shew whether greaves were worn or not, and the helmet, though it has cheek-pieces, has an abnormally high crest. A second and more fragmentary example (*op. cit.*, p. 272, fig. 125 *b*) exhibits the inner face of a concentric circle shield and in front of it a naked torso. The third and sole other published example (*op. cit.*, p. 263, fig. 122 *a*) extends a single-grip shield adorned with omphaloi at arm's length in the proper attitude, but wears a Corinthian helmet, plate-corslet and greaves. Both of these come from the stratum Lead II (*c.* 635–600). Whether in these three cases heroic figures are intended it is impossible to say. That from *c.* 700 onwards hoplite



FIG. 7.—ARYBALLOS FROM PERACHORA.

equipment was general at Sparta is clear, and, in view of the interpretation sometimes put on certain passages in Tyrtaeus or the poetry which goes under his name, the fact is of importance.

On the other hand, the evidence does not suggest that here any more than elsewhere the new equipment goes back into the eighth century; it thus confirms the evidence of the Tiryns votives, whose form as well as their decoration must be taken into account, that the single-grip shield was still in use in the Peloponnese not long before 700 B.C.

The remainder of our monumental evidence is furnished by a small group of proto-Corinthian aryballoi, of which one belongs to the first, the rest to the second quarter of the seventh century. The first, hitherto unpublished, was found at Perachora in the course of the recent excavation of the site by the British School (Fig. 7). In the right-hand half of the composition the surface is much damaged; a good deal is wholly lost and many details

are uncertain. The subject is a battle of eight combatants whose grouping strongly suggests two opposing lines; the centre of the composition consists of four men, two on each side, engaged in still undecided combat. The third man of the Left has broken the opposing line and, well into the right-hand half of the picture, is bearing down the third man of the Right; the fourth man of the Right is hastening to the rescue. He is balanced by the fourth man of the Left, an archer, who, kneeling on one knee, has just launched a shaft; its enormous head is about to penetrate the shin of the protagonist of the Right in the central combat. Behind the archer the flute player moves off the field to safety, his feet turned to the left, his head over his shoulder to the right as he sends a last admonitory blast after his side. Like the Chigi piper, he is unarmed and wears a chiton.

Though the tactics are hoplite, the armour of the figures on this vase presents a remarkable mixture of innovation and tradition. Corinthian helmets are worn by all those combatants whose heads are preserved, five in number, if we except the archer, who appears to be bareheaded. That is to say, the helmets are Corinthian so far as the crest and the neck protection are concerned; the faces are largely or totally exposed, only the Left protagonist of the central combat having anything that can be called a cheek-piece. This is very much what we have just seen on the proto-Attic support. There is no indication of greaves, but this is not surprising, if we consider the comparative rudeness of the drawing.

Apart from the archer, the combatants are armed with spears. In three instances only have parts of the weapons been preserved, but in the remaining four the position of the arm indicates that the man is preparing a thrust; in no case is there any indication of a second spear. The left-hand man of the central pair directs his spear (of which the head and front part of the shaft are preserved) in the usual overhand way at his opponent's throat; he carries on his arm a hoplite shield of which the inner face is turned to the spectator. *πόρπαξ* and *ἀντιλαβή* are not indicated, or at least not preserved, but the position of the arm lying across the shield leaves no room for doubt. Several combatants wear what appears to be a corslet; it is not worn by the archer, it is shorter than the flute-player's chiton and though there is no definitely offset rim, it projects behind the back of the wearer. The supporter of the protagonist of the Right has inverted Vs on his chest; cf. No. 1 *infr.* p. 96, n. 4 and Fig. 8 a.

Of the other combatants the hoplite's supporter to the left appears to be naked. The body of his opponent has been too badly damaged to allow of any conclusion, and so has that of the man who attacks the succumbing warrior on the right; the body of the latter is masked by his shield. Both the supporter

and the opponent of the hoplite carry Dipylon shields, which makes it clear that what we have is not a contest of old armature *versus* new. It is to be noted that the Dipylon shields are not held vertically, as they always are in Geometric art so long as the owner is on his feet, but slantwise, as the hoplite shield normally is in action and as we have seen it on the Berlin aryballos. Already the artist can represent no attitude but the hoplite's, but it should be noted that the Dipylon warrior of the left shews the outer instead of the inner face of his shield. This error, confined to early proto-Corinthian art, provokes the conjecture that the problem of depicting the tell-tale inner face embarrassed the artist. The much-defaced shield of the succumbing warrior appears to be Dipylon. Those of his assailant and his defender have both disappeared, and that of the remaining warrior, the second of the army of the Right, is so nearly obliterated that little can be said. There is not space for a Dipylon shield, and it looks as if even a round shield, which one arc of a circle seems to indicate, must have been foreshortened.

This crude and early version of the hoplite phalanx is linked with that on the Chigi vase by the novel presence of the flute-player as well as by the suggestion of troops engaging in line, but differs from it in the mixture of hoplite and pre-hoplite equipment. This feature we shall meet in one form or another on most of the aryballoi we are about to investigate, but the inconsistency very rarely extends to the shield. That no such combination of incompatible equipment and tactics could ever have been practised in real life hardly needs stating; the hoplite phalanx was of its essence one and indivisible.¹ The most plausible explanation of the phenomenon in art is that the obsolete elements were deliberately introduced to mark the scene as heroic.

Though I have no doubt that one object of the artist of the Perachora aryballos was to depict the encounter of two hoplite forces, I have also felt certain from the first that the scene was at the same time meant to be heroic. I am now convinced by the arguments of Mr. Dunbabin, whose note on the vase is appended,² that the matter can be taken a stage farther and the scene identified as the slaying of Achilles by Paris. If this interpretation is accepted, it follows that the same subject recurs on no. 5 of the group of slightly later aryballoi described below. Part of the object of this paper is to establish the thesis that the aryballoi of this group owe their ultimate, though indirect, inspiration to the influence of epic poetry, whether of Homer or the Cycle, and that throughout any archaism in the armature is meant to stamp the scene as heroic.

¹ Cf. A. W. Gomme, *A Historical Commentary on Thucydides*, 10 and 12.

² H. preserved 4. 1; neck and mouth missing. Fig. 7, from a drawing by Miss Audrey Petty. The

fabric is good, though the surface of the vase is poorly preserved. The shape is that of Johansen *VS*, pl. 23. 1. This together with the style, suggests a date in the second decade of the seventh century.

The identification of an epic subject on this early example of proto-Corinthian art clinches the argument so far as literary inspiration is concerned, and it is possible to draw from it other interesting conclusions. The slaying of Achilles was an episode in the *Aithiopis*, another episode of which—the slaying of Antilochus by Memnon—is twice alluded to in the *Odyssey*; ¹ yet another was the slaying of Penthesileia by Achilles. We now find the last, according to a highly probable identification,² depicted on the votive shield from Tiryns. Of course neither this nor that of Paris and Achilles on the aryballos is mathematically demonstrable, but they do something to support each other, especially in view of the fact that the two monuments are very near in date, that the cultural relations between the Argolid and Corinthia were at that time exceedingly close ³ and that, according to tradition, both episodes formed part of a single poem. Finally, the approximate dates of the Tiryns shield and of the *Odyssey*, in which a reference to the same poem occurs, cannot be widely separated.

We may begin our survey of the fine aryballoi with:—

No. 1. Boston Museum of the Fine Arts, *AJA* 1900, pl. V; *VS*, pl. XXVII, 1 *b* (Fig. 8 *a*).

This example stands a little apart from the others in that it presents not a battle-piece, but the combat of a hero with a peculiar monster, in the shape of a lion from the middle of whose back rises an extra head, bearded and human. The rest of the space is filled by a panther behind the hero and a winged male figure behind the monster. The hero, armed with a single spear, wears Corinthian helmet, greaves and a plate-corslet,⁴ and is therefore plainly a hoplite. The outer face of his shield with a flying bird as blazon is turned towards the spectator. Though the scene does not correspond with any recorded mythological incident, it is clear that one is represented; this is an early instance of the literary influence which is marked in this group. The theme is a new one and the artist is not hampered by tradition in dealing with it; he naturally portrays the hero with contemporary equipment.

Cruder in execution and probably a shade earlier is:—

No. 2. Museum of Syracuse, found in the del Fusco cemetery; pub. *N Sc* 1893, p. 471; *VS*, pl. XXVI, 5 *b* (Fig. 8 *b*).

Warrior striding right between two sphinxes, behind left sphinx a monster with human body and lion's head.⁵ The warrior wears Corinthian helmet and greaves; carries round shield with whirl device and two spears held with

¹ *S* 187–8, λ 522.

² See p. 134.

³ *Perachora* 1, 22 and 32.

⁴ An inverted double V indicates the space between the ends of the lower ribs, as the 'omega curve' does on

plate corslets in b.f. vase-painting. This anatomical indication was presumably given on real corslets.

⁵ Possibly Phobos; he answers to the description of Phobos as Agamemnon's shield-blazon on the chest of Cypselus, *Paus.* v, 19, 4.



a



b



c

FIG. 8.—ARYBALLOI IN BOSTON (a) AND SYRACUSE (b, c).

From Johansen, *op. cit.*, pls. 27, 1 b; 26, 5 b; 34, 2.

a forward slope in the Geometric manner. To right, pair of combatants; both wear Corinthian helmet and greaves; the one to left certainly, the other probably wears a chiton, but neither has a corslet. Each carries a round shield with blazon and wields a single spear, the one overhand the other underhand. The spear duel is a new motive which does not occur in Geometric art and illustrates a tendency in this group of aryballoi to break up battle-pieces into a series of vignettes. We have already seen the method employed on the Hymettus amphora.

There is here no suggestion of an encounter between two armies which is strong in the following examples.

No. 3. Museum of Syracuse, found at Gela, *MA* xvii, 157-8, fig. 116; *VS*, pl. XXXIV 2 (Fig. 8 c).

Subject: four pairs of combatants, of whom alternate pairs fight over the body of a dead or disabled man. All the eight combatants have Corinthian helmets and some, probably all, have greaves; the condition of the surface makes certainty impossible, at any rate so far as the reproduction is concerned. Of the eight shields, six are round, and of these two have the inside facing the spectator and exhibit *πόρπαξ* and *ἀντιλαβή*; two others wrongly shew the outer instead of the inner face. The seventh and eighth are a version of the Dipylon or Boeotian shield. The first is partly masked by the shield of the opponent, but enough is visible to shew that it was a longish oval¹ with a strengthening strip down the vertical axis; unfortunately the place where the side scallops should be is concealed. The shield is held as if it were a hoplite shield, in the impossible attitude noted on the Perachora vase. The single hand-grip of the Dipylon shield can only have been set vertically on the vertical axis, but when the shield went out of use, this fact was soon forgotten. Not only do vase-painters of the sixth century, who often introduce the obsolete article into heroic scenes, always give this impossible position, which would expose the wearer's body to the maximum degree and produce an awkward and useless projection at each side; they frequently shew the inside with *πόρπαξ* and *ἀντιλαβή* set across the vertical axis and at right angles to it.² The second Dipylon shield, held by the right-hand member of the next pair, is drawn in profile, a bold and successful experiment; the scallop and the adjacent border appear to be of the Dipylon type, though the condition of the surface prevents complete certainty. One combatant of the extreme left-hand pair has an unmistakable plate-corslet, with a rough attempt at an omega curve, one in the right-hand pair a chiton; the remaining three whose bodies are visible appear to be nude.

¹ Note the segment which appears behind the foremost knee of the opponent. Even without this addition however the shield is obviously oval, not circular.

² The evidence of the latest Dipylon vases such as the Benaki amphora (on which the hour-glass shield figures only as a shield-blazon) suggests that the older

form was supplanted by the round single-grip shield some time before the end of the eighth century. Even seventh-century vase-painters may have been dependent for their models on temple votives, actual or miniature, of which they would see only the faces.

Each combatant has a single spear; it is used overhand by five and underhand by three, of whom the owner of the second Boeotian shield is one. Of the five, two pairs are in the commonest posture of the spear-duel, aiming each at the unprotected throat of his antagonist; ὑπὲρ σάκεος μέγαλοιο|αἰὲν ἐπ' αὐχένι κῦρε φαινοῦ δουρὸς ἀκωκῇ.¹

Both the fallen men exhibit gory wounds, a novel and sensational touch, but much more notable is the pathos with which the doom of one and the agonised suspense of the other are indicated. The man on the right seems to be in the death agony, collapsed on the earth, but still making convulsive movements which have brought him over to his left side. His head, quite lifeless, has rolled still further to the left; μήκων δ' ὥς ἐτέρωσε κάρη βάλεν.² The other victim, on his back but still able to move, lifts his head and extends both hands in a final appeal for quarter. He is farther gone than Lykaon, who, exhausted but unwounded, relinquished the spear which he continued to hold throughout his first appeal to Achilles' mercy: ἔγχος μὲν ῥ' ἀφέηκεν, ὁ δ' ἔζετο χεῖρε πετάσσας|ἀμφοτέρως,³ but the gesture is the same.

The duel over a dead or wounded man is, like the spear-duel, a new *motif*, unknown in Geometric art; but, strong as is the interest of the individual scenes, the composition definitely indicates two confronted lines of soldiers.

No. 4. Louvre. Pottier, *Mélanges Perrot*, 269 ff., pl. IV; Johansen, *VS*, pl. XXXV. 1; Payne, *NC*, pl. 1. 8-11; central group, p. 95, fig. 29 a; *Protokorinthische Vasenmalerei*, pls. 22. 3 and 4, 23. 4 (Fig. 9 a-c).

Subject: (a) Duel over a wounded man, of whom a secondary figure on each side tries to obtain possession. The protagonists have Corinthian helmets, greaves and chitons, but not corslets; the one on the left has a single spear with which he aims an underhand stroke; the other levels one spear overhand and holds a second behind his shield. The wounded man still holds his one spear upright. Both he and the two who seek to seize him have one spear each and wear greaves, chitons without corslets and helmets with cheek-pieces and tall crests which curve forwards. This head-gear, extremely rare on proto-Corinthian vases, possibly peculiar to this vase, is also worn by the fallen man; the crest-holder affords a good grip to the 'body-snatcher' on the left, which the Corinthian helmet could not do, but which the Homeric helmet did—ἐπαΐξας κόρυθος λάβεν ἱπποδασείης|ἔλκε δ' . . .⁴ That was the helmet of a living man; but Homeric warriors also contend for the bodies of the slain: Ἐκτῶρ μὲν κεφαλῇφιν ἐπεὶ λάβεν, οὐχὶ μεθίει|Πάτροκλος δ' ἐτέρωθεν ἔχεν ποδός.⁵ The shield of the rescuer is slung behind his back; in front of him the protagonist on the left has brought his round to protect his trunk further than realism would allow.

¹ Ψ 820-1. ² Θ 306. ³ Φ 115-6. ⁴ Γ 369-70. vases warriors seize their opponents by the crests of their helmets: *Cat. Louvre* A 519, Hampe *FgS* 48, fig. 22.
⁵ Π 762-3; cf. also P 394-5.

(b) Two pairs of combatants who wear Corinthian helmets, greaves and chitons and have one spear each. The left-hand pair aim them overhand;



FIG. 9.—ARYBALLOI IN LOUVRE.

(a, b) from Johansen, *op. cit.*, pl. 35, 1; (c) from Payne, *Necrocorinthia* (Clarendon Press), p. 95, fig. 29A; (d) Johansen, *op. cit.*, pl. 33, 1 f.

one of the right-hand pair is in retreat, but makes a half turn and aims underhand at his pursuer, who threatens him overhand.

The episodic and literary quality of the subject is much more marked than in the case of the last vase, and the struggle for the possession of the body of a fallen man, an epic commonplace, can hardly have been a feature of hoplite fighting.

No. 5. Louvre; pub. *Rev. Arch.*, lxxviii (1921), 7 ff., fig. 1; *VS*, pl. XXXIII (Fig. 9 d).

The principal group¹ in the figure zone consists of four figures, *viz.*, three hoplites, two left, one right; behind the latter an archer kneeling on one knee draws his bow. The last-named we may now call Paris; one of the two

¹ The central group however is that of the hoplites' duel.

hoplites of the Left is Achilles. All three hoplites have Corinthian helmets, greaves¹ and round shields, of which those on the left shew the inner faces; despite a somewhat damaged surface, it can be seen that they are hoplite shields and that, inconsistently, each man's hand grasps a second spear as well as the ἀντιλαβή. Those whose bodies are visible are nude, including the archer who wears a Corinthian helmet and nothing else. Nevertheless, it does not appear that he is seeking shelter. He is fighting unprotected, as does the Homeric archer, except Teukros in a single passage of a suspect book, and, again as the Homeric archer generally does if his position is specified, among the spearmen. In the hoplite line the archer could find no place, but must have shot either from the rear (not without some risk to his own side) or from the flank. Which of the two opposing hoplites is Achilles is perhaps not quite certain, but presumably the second, who must be taken as aiming at the archer. On a careful examination of the left foot and the shield (encroached on by the elbow of the other hoplite) of this figure and of the bow, arrow and hand of the archer it becomes apparent that both are meant to be in the second plane,² masked to a very slight extent by the central pair of hoplites. This arrangement was doubtless dictated by the fact that the wielder of a long-range weapon could not form part of the central group in its strictest sense if his target was to be included in it.³

The next group to the left consists of a pair of combatants who fight over the body of a wounded man. He is in the very act of collapsing; though he is still on his knees, his face rests on the ground. Both he and the two combatants wear Corinthian helmets and greaves; their bodies, so far as visible, are naked. The shield of the wounded man is probably round though very little of it can be seen, and that of his defender certainly is; its outer face with blazon is wrongly presented to the spectator. The assailant has a 'Boeotian' shield held, as always, like a hoplite shield; its outer face is turned to the spectator and is covered with a scale pattern which does not recur on any other proto-Corinthian shield, but is common on the Boeotian shield in b.f. vase-painting; it has been thought to represent tufted hair left on the outside of a shield of hide. On one side there is an oval opening near the edge which probably represents the scallop; unfortunately the surface is a good deal damaged at this point. This warrior has only a single spear whose head seems to be still engaged in the body of the wounded man; his opponent has two, one held in his shield hand.

¹ Not apparent in the reproductions, but according to Johansen worn by all the figures except the archer.

² On the Perachora aryballos the archer is apparently thought of as in the second plane; one hand and part of the shaft of the arrow he is preparing to launch are masked by the leg of the hoplite in front of him. The

artist could not however carry his conception through, for the archer's r. foot masks the l. foot of the hoplite.

³ Over Paris, a bird of prey sighting his quarry flies in the line of the arrow's flight towards the Greek side. Cf. the bird on shield A from Tiryns, p. 137 *infra*.

The third group, placed behind the archer, consists of a pair of combatants engaged in a spear duel; each holds a second spear in reserve. Both wear Corinthian helmets, greaves and corslets, but no chiton; both have round shields, and the one whose inner face is turned to the spectator is seen to be a hoplite shield.

All the Boeotian shields at present known in proto-Corinthian art have now been enumerated—five distributed over three vases.

There is little or no suggestion of a continuous line in the composition of this decidedly Homeric



FIG. 10.—THE MACMILLAN ARYBALLOS.

From *JHS* xi, pl. II, 5.

battle-field, the three groups being all but completely disengaged one from another, whereas in no. 3 above they are kept in close contact by the crossing of the limbs of the outer combatants in each. The twin spears of epic are curiously emphasised, their heads being used, especially in the right-hand group, to form an important element in the pattern, replacing the sparse filling ornament found in other parts of the field.

No. 6. The Macmillan aryballos. In the British Museum; pub. *JHS* xi, 167 ff., pls. I and II; *VS*, pl. XXXI (Fig. 10).

That the Macmillan aryballos is closely allied to the Chigi olpe in style has always been recognised; the kinship extends, though less obviously, to

the subject, which is the hoplite phalanx in action. The method of narration, however, is very different. The opposing lines are intermingled, at first sight inextricably; gradually we disentangle the fortunes of the two sides, illustrated in a series of hand-to-hand encounters. The composition, however, is close-knit and never breaks up into groups; the sentiment of the line as an organic unit always prevails, and though scrutiny reveals incidents, none on a first glance arrests the eye. The moment depicted is that in which the right-hand line of hoplites is just breaking down the resistance of the opposing force. The spear-duel which forms the central group of the composition differs from the stock scheme in that the combatants do not confront each other heraldically. The left-hand man (blazon damaged, described as bull's head in *JHS*, xi, 172), already in retreat, has made a half turn to face his pursuer (blazon, a hen), ἐντροπαλίζόμενος, ὀλίγον γόνυ γουνὸς ἀμείβων,¹ and levels an underhand thrust at him; the other threatens an overhand stroke. Each has a second spear, grasped in the hand concealed by the shield. To the left of this group resistance still continues. It is true that the nearest man of the broken line has fallen on his knees, as the result of a wound or a stumble. It may be to screen him that his comrade in the central group has turned to resist; if so, the effort is vain, for an adversary who has outrun him turns and aims a downward thrust at his back. The kneeling man stretches out his empty right hand to ask for quarter; the left behind his shield holds his remaining spear. He has not succeeded in running, as Lykaon did,² under his opponent's guard and clasping his knees with one hand, but like him τῇ ἑτέρῃ ἔχεν ἔγχος ἀκαχμένον οὐδὲ μεθίει.

Next to the left two of the victorious line aim overhand thrusts at two of the left, who retreat in good order, half turned round and defending themselves, one with an overhand, the other with an underhand stroke. The pursuers have two spears each, their opponents only one, having presumably lost the other earlier in the encounter. Behind their legs a disabled comrade can be discerned to whom they afford cover.

To the right of the central group the superiority of the victorious side is even more definitely established. In all, four of the defeated are on their knees, and in each case the pursuer deals the death-stroke from behind and above, shewing that the victims were struck down in flight. The first supports himself on his right hand; ἔστη γνύξ ἐριπών καὶ ἐρείσατο χειρὶ παχείῃ γαίης,³ his left still holding his remaining spear. The plume of his helmet is tossed in three strands over his shield; his foe pierces the back of his

¹ Λ 547.

² Φ 72. On a proto-Attic sherd in the Black and White style, which is contemporary with our group of aryballoi and strongly under proto-Corinthian

influence, a warrior who has fallen on his knees clasps the knee of his opponent, *BSA* xxxv, pl. 52 a.

³ E 309-10 = Λ 355-6.

neck with one of his two spears. The second of the kneeling men, whose plume is in similar disorder, still grasps his remaining spear in his right hand; his enemy, holding his second spear in reserve, strikes him with the other apparently in the back of the head, presumably in the neck. The third shews more fight. Holding his reserve spear in his shield hand, he turns as he kneels and deals with his right a thrust which should strike his opponent low down in the abdomen. The latter has lost one spear, the only man on the victorious side who has; possibly the artist means to let the losers score one success, though the man in question aims with his remaining spear a blow more or less at his enemy's heart. Next comes one of the victorious force who has at the moment no one to attack, but levels one spear and carries the other with a forward slope behind his shield; he balances the crouching figure behind the legs of the retreating party on the extreme left and deals the death-stroke to the fourth man of the Left. Each force has nine members; on the winning side all are on their feet, on the losing three are still erect, six are on their knees.

In the composition of the subject there is an epic quality which does not reside solely in the grandeur of the manner or in the sense of a spacious field of action which the artist contrives to convey. It is present also in the narrative, and it is surely no accident that so many of the brilliant episodes on this aryballos—and, as we have seen, not on it alone—are aptly described by some tag from Homer. It is true that some of these motives are common-places, such as many forms of primitive fighting might supply; still, they are common-places no one of which, not even the spear-duel, it had ever occurred to the Geometric artist to record, for all the zest with which he depicts the warfare of his own day. Other motives, again, are incompatible with the hoplite tactics which the archaeological evidence has shewn to be contemporary with proto-Corinthian figure-painting from its very beginning. The hoplite phalanx did not attempt to retrieve its dead in the course of the action; they were picked up afterwards, by the right of victory or the favour of the victor. Most persistently the pair of throwing spears crops up to mar the perfect picture of hoplite equipment. It has often been asked whence vases like the Macmillan aryballos derived the nobility and largeness of their style, and the answer given by the late Humfry Payne¹ remains by far the most convincing, *viz.*, that proto-Corinthian vase-painters were inspired by the free painting contemporary with them. Into this greater art some new factor must have entered.

Whether the latest Geometric vase-painting dealt with heroic and mythological subjects or not is a moot point; if it did, the spirit of its representation was entirely different from that which we have observed in proto-Corinthian

¹ *JC*, 96.

art. Just as the funeral processions which are its earliest contribution to figure-painting are Everyman's funeral—or at least every nobleman's—so the scenes of battle, land or naval, without respect of persons, record the ordinary observer's impression or recollection of what was visible at any given moment. The artist does not, like his proto-Corinthian successor, isolate scenes of individual daring or disaster; his liveliest action somehow misses drama, and his business-like tabulation of the slain lacks pathos.¹ This literalness in conception persists in the scenes on the Hymettus amphora and the stand, though the method of treatment has changed; the Geometric artist cannot be suspected of having experienced any literary influence. Here too, however, there is some greatness of conception; he also may have found inspiration in the greater art of his time, and as the list lengthens of temples going back to the beginning of the eighth century, we need not doubt that the art of wall-painting had arisen long before its end. One of the factors which transformed it (if we may infer so much from a comparison of Geometric and proto-Corinthian vase-painting) was the profound influence exerted on Greek imagination by the epic and especially by the *Iliad*. In a time of such lively intercourse by sea as the second half of the eighth century the *Iliad* must have quickly become known on the Greek mainland and, as the archaeological evidence reviewed above has suggested, in the Argolid and Corinthia as early as anywhere.²

The artistic transformation would not, of course, be completed at a stroke. The new principle of selection of incident and grouping in vignettes, which heightens the significance of the individual, was there from the first, even to a certain extent in the Perachora aryballos; there, too, struggling to assert itself against it, was the consciousness, equally foreign to Geometric art, that the battle engaged was between two organised fronts, in which the individual was merged in the fighting force of his *polis*. On the Berlin aryballos and in the relevant zone of the Chigi olpe the heroic motive is wholly discarded in favour of an exaltation of contemporary life, perhaps the glorification of the hoplite class in which, as appears probable, Cypselus found the most reliable support of his power.³ What exportable monument could be better fitted than the olpe to spread the impression of Corinthian military power in the highest circles abroad? Yet the artist, for all the realism of his hare-hunt, was aware

¹ See, e.g., Perrot et Chipiez vii, 182, fig. 67; *AZ* xliii (1885) pl. 8. 1, *CVA Copenhagen* ii pl. 73. 4; Köster, *Das Antike Seewesen*, fig. 21 (between pp. 86 and 87).

² We may note the two dedicatory inscriptions from Perachora, both earlier than 650, one possibly of the eighth century and certainly not much later, and both addressed to Hera λευκώλενος. The adjective is a literary, not a cult epithet. The development of the lion-hunt as we see it on an aryballos (*VS*, pl.

XXIX, 2 b), and on the Chigi vase may have been influenced by such a description as we find in the *Hoplologia* (Σ 577 ff.) and by the more elaborate lion-similes of Homer. Elsewhere the lion appears pacing in a formal procession of bull, deer, goat, etc., or with sphinx or griffin as an exotic decorative element, while in Late Attic Geometric he occasionally appears as a symbol of death.

³ *CAH* iii, 551.

of the parallel heroic tradition of the aryballoi, and would not be wholly out of the fashion. In the zone below that of the armies, beside the lion-hunt, which at least was no part of contemporary experience, we find, certified by inscriptions, the Judgment of Paris, or rather of Alexandros, the name used in the reference to the episode in the last book of the *Iliad*.¹ That very passage may have determined the use of the name not only on the Chigi vase, but on the chest of Cypselus, on which the same subject was represented. The mythographical inscriptions of the olpe are not, however, the earliest of their kind in proto-Corinthian vase-painting. On the fragments of a pyxis found in Aegina, dated by Payne to the beginning of the second quarter of the seventh century, fragmentary inscriptions in large, ugly letters made possible the identification of the subject as the wedding of Amphiaraios and Eriphyle.²

We need not be surprised that our identified subjects come from the epic cycle; it was more prolific of paintable scenes as of subjects for tragedy than were the *Iliad* and the *Odyssey*.

The proto-Corinthian artist had to deal with certain problems of equipment. The round shield was fortunately common to the contemporary and the heroic age, and the question of its handling presented no difficulty to a generation which knew the single-grip form only as dedications hung face outward on temple walls or painted on them in silhouette. The same applies to the completely obsolete Dipylon shield, which must have been associated with the heroic past and whose image would probably be evoked when an audience heard a Homeric shield called ποθηνεκής. Its rarity in proto-Corinthian vase-painting contrasts with its frequency in Attic b.f., where it is a stock heroic 'property' throughout the sixth century and until the sack of the Acropolis by the Persians deprived the Athenian vase-painters of their models. Farther, the realistic, modernising tendency was strong enough all but completely to banish the war-chariot, which persists in the latest Geometric battle-pieces and revives again in heroic scenes in Corinthian and Attic black figure. It appears on a single proto-Corinthian aryballos, in a battle-scene of which there is no adequate reproduction;³ it is possible, however, to detect on Johansen's plate a two-

¹ Ω 28-9. The introduction of inscriptions, an inartistic device, was probably associated with the export trade in fine painted vases. If their designs were based on wall-paintings in the public buildings of Corinth there was no occasion for labels on those destined for the home market or the Argive or Corinthian colonies overseas. When they passed beyond these limits, however, and especially to Etruscan customers, the need for explanation would become apparent, and on Corinthian vases it was lavishly given.

² *N.C.* p. 98, fig. 30.

³ *AA* 1895, 33, fig. 5; *VS*, pl. XXIII, 2 *a* and *c*, p. 144. There are only three other examples of the

chariot in proto-Corinthian vase-painting: (*a*) in the main zone of an aryballos from Syracuse (*MA* xxv, pl. XIV; *VS*, pl. XXXIV, 1); race of pair-horse chariots. A bearded man stands with three prizes displayed before him—a tripod, a krater and a large kotyle. This is either a local event or a Homeric reminiscence. The five prizes for the chariot-race in ψ include a tripod, a lebes and a phiale. (*b*) In a subordinate zone on the Berlin aryballos, race of four-horse chariots; an Olympic reference which conforms to the modernity of the theme of the main zone. (*c*) A four-horse chariot as an isolated motive in the lion-hunt zone of the Chigi vase. To these must be

horse chariot, empty, behind which stands the charioteer holding the reins; behind him again another man holds a horse by the bridle with one hand; facing the chariot a man poises a spear. Though the painter uses both red paint and incision, the strength of the Geometric tradition is visible in the chariot and throwing-spear.

Though never used for throwing, the pair of spears which recurs so often on our aryballoi must rest on the authority of epic and express the belief that the heroes of by-gone days could manipulate them in conjunction with the hoplite shield, which was in fact totally incompatible with their use. On the aryballoi discussed they are never thrown, though on contemporary specimens with hunting scenes they are shewn flying through the air,¹ as they are in battle-scenes on Geometric vases. Their presence cannot be explained by the theory recently put forward by Nierhaus² to account for the sporadic appearance of the plate corslet—*viz.*, that the adoption of hoplite equipment was piece-meal and gradual and still far from complete at the end of the seventh century. Overlooking or ignoring Helbig's article cited above, he holds that the process began with the introduction in the eighth century of the round shield, which, by implication, he identifies with the hoplite shield, and that this was followed by the slow and tentative adoption of the plate-corslet, representations of which are rare (though hardly so rare as he implies) in the first half of the seventh century and not very numerous in the second. With the Corinthian helmet, greaves and spear he does not deal; it will be remembered that the first, together with the plate-corslet, is already present on the Perachora aryballos (which of course was unknown to him) and the second on the Hymettus amphora, while the single spear is exclusively used on both. His hypothesis is *a priori* improbable, for hoplite equipment is inseparably linked with the phalanx and its tactics, whose whole object was to supersede long-range fighting by a hand-to-hand encounter waged by an unbreakable line uniformly armed. The essence of the change consisted, for attack, in the substitution of the single heavy thrusting-spear for the pair of light throwing-spears and, for defence, in the adoption of the πόρπας shield with its powerful inducement to keep the line and not turn tail. Greaves extended protection without being a serious encumbrance; the Corinthian helmet superseded, not quite universally, forms which might offer a hand-hold to an opponent in the now inevitable close-locked struggle. These items form a natural and logical combination, and they all appear on one of our earliest monuments, the Perachora aryballos. The Carians, if they invented

added chariots with winged horses, which are in a different category: that on the Aegina pyxis just quoted and another on a Geometric gem from

Corinth (Furtwängler, *Antike Gemmen*, II. pl. 4, no. 46).

¹ *VS.* pl. XXIX 1 b, 2 b.

² *JdI* liii (1938), 90 ff., *Eine frühgriechische Kampfform*.

the πόρπαξ shield, must also have invented the cohesive tactics of which it was to be the instrument. This is a natural achievement for leaders of mercenaries whose employers would be concerned with no safety but their own if the day were lost or even doubtful, while the men who were to put the new system in practice could hardly be relied on unless they were given the maximum protection compatible with their functions. Herodotus, however, does not say that the Carians invented the plate- or any other corslet, nor does any other source. It seems safe to assume that corslets had long been in use, though they were not of metal; they were familiar in the Homeric world, as the verb θωρήσσειν suffices to shew, but metal corslets can so often be shewn to be intruders in the *Iliad* that it is reasonable to assume that they are alien to it throughout. It is possible that it was left for one of the Greek cities to work out the final balance of mobility and individual safety by including the plate-corslet in hoplite equipment, but its adoption by the first state to use it must have been collective; no weak spot could be tolerated in the phalanx, and the condition of belonging to it was ability to provide the equipment. Moreover, its spread over the Peloponnese and Central Greece must have been rapid, for when some new military device has been tried with success by one power, it is necessarily adopted by such other communities as may be called on to encounter it in use by the first. The archaeological evidence supplied by Corinth (assuming her to be the producer of proto-Corinthian ware), Attica and Laconia supports this antecedent probability.

Outside Greece evidence from Crete points the same way. The altar hill at Praisos yielded a number of miniature bronze votives, the earliest of the late eighth century, the bulk dating to the first half of the seventh.¹ They included shields, helmets, corslets, corslet-plates and so-called mitrai; with the last item, which appears to be peculiar to Crete, we are not here concerned. Of the round bronze discs, which, whole and fragmentary, numbered thirty or forty, it was not always possible to be certain that they represented shields. Most of them had disappeared by 1938; of the eleven then exhibited in the museum of Herakleion, one had an omphalos and concentric circles, and was therefore pre-hoplite, and part of a real shield found in the same region was decorated with concentric circles; presumably there was originally an omphalos as well. The other miniatures have the offset rim of the hoplite shield, which also appears on two terracotta models from the same site.² None has any vestige either of a central grip

¹ *BSA* viii, 258, pl. X; xl, 56 f.

² Models of pre-hoplite shields sometimes have rims, e.g., a series of the so-called lambda type from the

Heraion of Samos; but they are decidedly narrower and less sharply offset. See Eilmann, *AM* lviii, 118-19, figs. 64 and 65.

or of πόρπαξ and ἀντιλαβή, but on bronze votives they are rarely found, if at all. All the shields are circular; of the ancient Minoan body-shield no trace was found. Of six helmets, five were of a type already noted on no. 5 of our aryballoi, characterised by a tall, forward-curving crest and somewhat rudimentary cheek-pieces which leave a small, rectangular opening for the face. This is the type noted on the Geometric bronze figurine from Olympia.¹ The sixth was Corinthian, and a real Corinthian helmet was also found. There were ten corslet-plates and one complete model with front- and back-plates still joined at the shoulders; other specimens had been previously found on the site by Halbherr.² No miniature greaves were found, but there were some real ones, crushed and fragmentary. Of this material the tall-crested helmet gives the best criterion of date, though rather for the upper than the lower limit. Though it lacked the nasal of the Corinthian helmet and had a decidedly wider face-opening, this type must none the less have afforded a considerable amount of protection to the face,³ and may therefore have been retained in some regions after the hoplite shield, plate-corslet and greaves had been adopted; at least we find both forms side by side on later vases such as the Euphorbos plate. The tall-crested type appears late in the eighth century and persists some way into the seventh. Kunze confines it to the beginning of the century; this view probably puts its disappearance a little too high, but there is no reason to put it later than the first quarter. The latest in appearance of the monuments on which it occurs is a bronze figurine from the Heraion at Olympia; ⁴ the provenance, of course, affords no clue to the country of origin.

The evidence of Crete therefore, though less precise than that available for the mainland, points to the adoption of hoplite armour at approximately the same period, *viz.*, the first half of the seventh century, and probably rather early in it.

From E. Greece there is little evidence bearing on the date of the change. The single-grip shield has been found at Ialysos, where the archaic sanctuary of the goddess identified with Athena yielded miniature bronze shields,⁵ about a dozen of which are—or were—exhibited in the museum at Rhodes. They were all of single-grip type, most of them having an omphalos and concentric circles. There were no other pieces of armour.

At the Heraion of Samos ⁶ besides one complete example nine fragmentary miniature shields of terracotta were found, all of them attenuated

¹ Lamb, *G and R Bronzes*, pl. XV c.

² *AJA* 1901, 384, fig. 13.

³ *Ol* iv, pl. XV, no. 247 = Lamb, *G and R Bronzes*, pl. XV c.

⁴ *AM* xxxi (1906), pl. XVIII.

⁵ An extremely summary account of the finds was published in *Clara Rhodos* i (1928), 72 ff.

⁶ See p. 108, n. 2.

versions of the 'lambda' type, of which an actual specimen is known from Cyprus.¹ This shield is of pre-hoplite type.

We have noted above the silver figurine, partially gilded, of a hoplite in the museum of Chios.² The figurine must be dated not later than the second quarter of the seventh century, possibly as early as the first. Here then—and presumably in the other islands—the change in armature took place at about the same time as in Crete.

Against the evidence accumulated in favour of an early and complete change in equipment, Nierhaus has nothing to urge but the fact that in vase-painting of the seventh century, and especially the first half, it is rare to find a battle-piece in which all the combatants wear plate-corslets. The argument, if pressed home, leads to remarkable conclusions. Some figures that have the corslet and some that lack it have no chiton; are we to suppose that the chiton in the seventh century was spreading slowly and gradually through Greece? The fact that the Greek had a strong inclination to draw the human figure nude is admitted where sixth- and fifth-century vase-painting is concerned, and the nudity is called heroic or ideal. Study of proto-Corinthian vase-painting shews that the same inclination operated in the seventh century³ and that the lack of chiton or corslet must not be otherwise judged. Farther, Nierhaus makes an interesting observation without perceiving how it tells against his own theory. An early 'Kampfform' to which he calls attention is the underhand thrust of the spear directed against the lower abdomen or the groin, the object of which is to avoid the corslet and yet reach a vital spot. He collects from vase-paintings of several centuries a number of instances of this thrust and of others from the rear also aimed below corslet level, and rightly points out that though the figures are sometimes nude, the corslet in these cases is none the less present to the imagination of the artist. The underhand thrust repeatedly occurs, as we have seen, in proto-Corinthian battle-scenes, testifying to the ideal presence of the corslet in the cases where it is not represented. The stroke, a weak one, is apt to be used when the man who deals it is in a position of disadvantage and must rely on surprise alone to get home with his thrust. The men on no. 4 and on the Macmillan vase wheeling round to turn on their pursuers furnish examples; so does the man in the right-hand half of the Macmillan vase who has fallen in flight, but turns on his knees to fight back. Both these vases betray the literary inspiration of which I have spoken, and their artists give a heroic tinge to

¹ Perrot-Chipiez iii, 869, fig. 636.

² The practice of partially gilding silver may have been common from an early date in the seventh century, perhaps from its beginning. It is referred to in the description of Athene's transformation of Odysseus (3 232 ff.) and the Lapiths on the Shield of

Herakles are described as ἀργύρεοι, χρύσεια περὶ χροῖ τεύχε' ἔχοντες (*Scut.* 183). Cf. Alcman I, 51-5 for the description of Hagesichora.

³ In Geometric art, with a few exceptions belonging to its latest phase, the male figure is represented as nude.

their treatment; this feeling is quite absent from the battle-scenes of the Berlin and Chigi vases, in which full hoplite equipment is worn by every figure, so far as it is visible.

If we now turn to the literary evidence, such as it is, we find that on the whole it confirms the conclusions to which the arguments based on archaeology have led us. There can be no doubt that the *Iliad* depicts pre-hoplite equipment and tactics, of which the former at least in many respects remained unchanged from the latest phase of the Bronze Age onwards. Shields have telamons, as is expressly and frequently stated;¹ moreover, spears are frequently carried in pairs, and used at long range. In retreat the shield is flung behind the back; ὅπιθεν δὲ σάκος βάλεν ἑπταβόειον, τρέσσε δὲ;² a fact which guided Leaf to the true interpretation of Θ 94; πῇ φεύγεις, μετὰ νῶτα βαλὼν, κακὸς ὥς ἐν ὁμίλῳ. For the prose of this we have only to turn to Xenophon's description of the flight of a party of Thracians.³ The elliptical formula of itself suffices to shew that the manoeuvre is regular. No Homeric hero ever earns the horrid epithet of ῥίψασπις, and for the best of reasons; in flight the shield was his chief hope of survival.⁴ If that robust realist Archilochus abandoned his, it is fairly safe to conclude that it was a hoplite shield. In defence the single-grip shield, if small, could be used almost like a parry-stick—a fact which soon faded from memory. The *Iliad* has preserved a unique trace of it in the epithet σακέσπαλος once bestowed on Tydeus (E 126). The word first reappears in Callimachus (*H.* i, 71) with the general meaning of πολεμιστής, all that is vouchsafed by Hesychius.

The Homeric helmet, unlike the hoplite's, appears to leave the face exposed. The thorex is, indeed, frequently mentioned, but often omitted where we might expect to find it; on two or three occasions its appearance in an inorganic line makes nonsense of a rational context.⁵ That θωρήσσεσθαι and other derivatives of the noun are deeply embedded in the epic vocabulary is certain, and is best explained by the hypothesis that θώρηξ was originally the name given to the jerkin, probably of leather, certainly not of metal, depicted on the Warrior vase and other monuments of the latest phase of the Mycenaean culture, and that this article did not go out of use till it was superseded by the plate corslet. As it was comparatively easily pierced, it is often ignored in descriptions of combat; the *Iliad* furnishes several examples of implied avoidance of a corslet when a blow is dealt. Thus when Achilles finds Asteropaios at his mercy, he slays him with a sword-thrust below

¹ See, e.g., B 388, E 796, M 401, Π 803.

² Λ 545.

³ *Anab.* vii, 4, 17.

⁴ Hence we may feel confident that ῥίψοπλον (Aesch. *S.c.Th.* 315) = ῥίψασπις. On apparent examples of

the hoplite phalanx in Homer see Helbig, *Ueber die Einführungszeit der geschlossenen Phalanx* (KBay. Ak. Wiss. 1911).

⁵ Γ 358, H 252.

the belt: ¹ γαστέρα γάρ μιν τύπε παρ' ὀμφαλόν. Here there is no overt allusion to a corslet; but some later Homerid noted the significance of the wound, and at the funeral games the corslet of Asteropaios figures as a prize. It is of a quality that could hardly have escaped remark on the field of battle, had it been present there: χάλκεον, ὃ πέρι χεῦμα φαεινοῦ κασσιτέροιο ἀμφιδεδίνηται.² These lines, like a number of others, cannot ante-date the invention of the plate-corslet, and throughout the *Iliad* the corslet is apt to acquire epithets and descriptive phrases which apply only to the later article. The case, however, is not always simple. It is again called χάλκεος in N 371-2 and 397-8. It can hardly be by accident that the line and a half in question should occur twice within so short a space and nowhere else in the poem, and it is notable that in the second case the wearer is a chariot-driver, for the scale-corslet in Syria, its home, is first worn by the shieldless charioteer. Adopted to some extent in Egypt, it figures on the chariot of Thothmes IV and in the armoury of Ramses III as depicted on a wall at Medinet Habu, and remains of an actual specimen have been found in the tomb of Sheshonk I (ob. c. 925 B.C.).³ It is worn by the hunting king on the draught-box of Enkomi,⁴ and the stiff garment, too short for a chiton, worn by a warrior on a sherd from Mycenae may represent it.⁵ In any case, it must have become known to the Achaeans in the course of their adventures in the Levant, and again to the Greeks when in the eighth century they once more got a footing there. Such a shirt of mail would cover the μέση γαστήρ, and yet it could be pierced; witness the Semite on the chariot of Thothmes IV with an Egyptian arrow in his shoulder. N 397-8, then, may well be original, whether it is, as I incline to think, a fragment of Bronze Age tradition or of knowledge lately re-acquired. N 371-2 will then be a later interpolation by someone who naturally took θώρηξ χάλκεος in 397-8 to be the plate-corslet. It seems probable that the scale-corslet is meant by the unique χιτῶν χάλκεος of N 439-40. It is possible that this designation of an object with which many of the Achaeans of the Late Bronze Age must have been familiar gave birth to the epithet χαλκοχίτωνες.

Παναίολος occurs as an epithet of the corslet in a curious passage, surely not original, where Diomedes stops in the midst of the desperate struggle which follows the wounding of Agamemnon to strip his fallen foe of so remarkable a prize.⁶ In Δ 448 (= Θ 62) the epithet χαλκεοθωρήκων is inconsistent with

¹ Φ 180; cf. Δ 525. When the fleeing Athamas (N 567-9) turned to confront his pursuer, Meriones, the latter μετασπόμενος βάλε δουρὶ αἰδοίων τε μεσηγὺ καὶ ὀμφαλοῦ. Athamas had presumably flung his shield behind his back in retreat and was not quick enough in bringing it round again when he turned. He has his leather jerkin, so Meriones aims low.

² Ψ 560-2.

³ Wolf, *Bewaffnung des altaegyptischen Heeres*, 97-8 and figs. 67, 69 and 70.

⁴ Of the Late Bronze Age. *Excavations in Cyprus*, pl. I.

⁵ 'Εφ. 'Αρχ. 1891, pl. iii, 2.

⁶ Λ 373-4. This is the only instance in Homer of a corslet being taken on the field of battle.

ἀσπίδες ὀμφαλόεσσαι at the end of the line. Corslets are called νεόσμηκτοι in a passage (N 339-44) which can only be an attempt, unique in the poem, to describe hoplite formation, and is therefore an interpolation, presumably of the seventh century. The emphatic μακρῆς marks the spears as the heavy thrusting weapon, while νεόσμηκτοι can only apply to a corslet of metal. In the *Certamen* these lines are immediately appended to N 133, the combination forming in Homer's opinion the finest passage in his works. The juxtaposition was no doubt made because both passages describe an embattled force in serried ranks which could be equated with the classical formation. N 130-3, however, is certainly not an interpolation; part of it may even be derived from Bronze Age tradition. Whatever φάλοι are, they form no part of the Corinthian helmet nor of any purely Geometric type known to us, all of which are notably devoid of rigid projections.¹ They are best illustrated by Bronze Age monuments of which the Warrior vase is one. Προθελύμνω is of doubtful meaning; the most plausible explanation is that of Wackernagel,² who takes it as another form of τετραθέλυμνον, *i.e.*, made of four layers of hide. This is no epithet of the hoplite shield, and even if we reject this explanation, the obscurity of the term suggests an obsolete and forgotten word or form. Ll. 134-5 are obscure. In spite of θρασειάων ἀπὸ χειρῶν, a phrase which, when used elsewhere in connection with spears, denotes flight from the hand, these spears are still grasped, as σείομεν' suffices to shew; in fact, the Greeks hold their fire, and when Hector leads the Trojans right up to them, they repel them in a hand-to-hand encounter, thrusting with sword and spear. The meaning of ἐπτύσσοντο is quite uncertain; it may indicate the appearance of a piece of cloth pleated or puckered, to which the parallel lines of the spears poised for action are compared. This is approximately Andrew Lang's explanation as cited by van Leeuwen *ad loc.*—'a close clump of spears underlying and overlying each other'. Though the spears of the Greeks are not on this occasion hurled, the verbs πάλλω, σείω and τινάσσω are proper only to the throwing-spear, though they are often used of the preliminary gesture with which a warrior advances into battle, not yet knowing to which use he will put his weapon.³ It is unlikely that strength would be thus wasted if the weapon were the heavy spear of the Bronze Age, which was of course normally used like the hoplite spear, overhand; the initial attitude being identical in all three cases. On the Chigi vase the combatants actually engaged use their spears overhand; three men behind them hold theirs low and level, a

¹ The only exception is the helmet with tall, forward-curving crest, evidently rigid, which, as has been said, begins late and continues into the seventh century.

² *Sprachliche Untersuchungen zu Homer*, pp. 237 ff. W. regards προ- in this instance as analogous to πρυ-

or τρα- in τρυφάλεια or τραπεζα. Leaf's explanation that προθέλυμνος here describes a position of the Bronze Age body-shield, with the lower edge resting on the ground and slightly advanced, is less probable.

³ Cf. N 556-9.

position intermediate between the slope at which they are carried on the march and that of action in the fight which they will be the next to enter. δόρυ ἀνασχεῖσθαι denotes the overhand attitude, preliminary alike to thrust and throw, but generally leads up to a close combat.¹ N 134-5 therefore describes a body of men densely massed and holding their spears ready to throw; they have nothing to do with the hoplite phalanx, being in fact far too closely packed, but mass themselves temporarily for resistance, as any hard-pressed troops might. Nothing about them falls outside the Early Iron Age tradition.

In Π the lines N 131-3 recur as 215-17. Though introduced by a delightful and certainly not traditional simile, which incidentally proves the use of stone in humble domestic architecture,² the Bronze Age fragment is here more imperfectly adjusted to the context. In the preceding line the shields are described as ὀμφαλόεσσαι, a pre-hoplite type which does not appear in Greece before the Iron Age; and the close formation, exaggerated in N, since with ranks standing one behind the other, as ἐφέστασαν implies, it admits of neither volley nor charge, is doubly out of place here. The troops might, indeed, have massed themselves in front of Achilles to hear his harangue, but it is absurd that they should close up the ranks yet tighter when it is over, and all they have to do is to watch Patroklos and Automedon arm. Once more there can be no question of the hoplite phalanx. In both cases the typical Homeric single combat ensues. Broadly speaking, the fighting reflected in Homer is that of the Geometric Age with certain Bronze Age survivals; the only apparent interpolations of seventh-century armour and tactics are the intrusive corslet lines (Γ 358, Δ 136, Η 252 and probably Λ 436), the epithets and phrases which describe the corslet as of metal, and the solitary description of phalanx formation N 339 ff. The account of the Abantes of Euboea in the Catalogue³ is probably also an interpolation, celebrating the triumph of hoplite tactics, for ὀρεκτῆσι implies the thrusting-spear, as both Strabo notes⁴ and Plutarch⁵ implies. The inscription engraved on a stele in the shrine of Artemis at Amarynthos,⁶ according to which Chalcis and Eretria renounce the use of long-range weapons no doubt belongs to the same period.

Scanty as are their remains, the early lyric poets make certain contributions, mostly ambiguous, to the problem of arms and armour. That Archilochus fought as a hoplite seems certain, since, as already noted, he would hardly have left his shield behind him if it had been anything but an encumbrance; moreover, if no discredit had attached to the incident, he would not have

¹ Φ 67-8 and 161 ff.; cf. Λ 594, Ο 298, Π 234.

² Possibly the use of stone is an Anatolian touch. Mycenaean and Geometric buildings are of brick, which is never mentioned in Homer, sun-dried and on a base or pedestal of masonry.

³ B 542 ff.

⁴ x, 1, 13.

⁵ *Vit. Thes.* v, 2.

⁶ Strabo x, 1, 12.

troubled to make a song about it. Farther, in Frag. 2 he emphatically says that his weapon is the spear—the single spear—no one could sing quite in that key about a pair of throwing-spears.

Another fragment which provokes inquiry is 3—οὐ τοι πόλλ' ἐπὶ τόξα τανύσσεται οὐδὲ θαμεῖαι|σφενδόναί, εὖτ' ἂν δὴ μῶλον Ἄρης συνάγη|ἐν πεδίῳ· ξιφῶν δὲ πολύστονον ἔσσεται ἔργον·|τάττης γὰρ κείνοι δαίμονες εἰσὶ μάχης|δεσπότηι Εὐβοίης δουρικλυτοί.

The situation which evoked the poet's enthusiasm for close combat with the sword is obscure; as we have just seen, it was not the weapon of his own choice. Since the spear, whether thrusting or throwing, is not mentioned, it is highly unlikely that the passage refers to the introduction of hoplite armour. Professor Wade-Gery suggests to me that the threat of war between the Chalcidians and Andrians arising out of their race for the site of Akanthos ¹ would be a suitable occasion, undated indeed, but certainly falling within the seventh century, probably within its first half. The poet's antipathy for the bow is curious, suggesting that it was playing a greater rôle than any we can trace in recorded Greek warfare; and in fact its appearance in battle scenes on Late Geometric vases does indicate that in that period it had a certain importance. It figures both in the European and the Asiatic form in battle scenes which include sea-fights and attempted landings by raiders, or, it may be, by would-be Greek colonists. In the landing scenes it is used by both parties, from the ships to cover the landings, by the defenders to repel the invading force; obviously, in both landings and sea-fights it was of the highest importance to both parties to have command of a good long-range weapon. Eight examples are known to me, by no means a negligible total when we consider how small is the number of Geometric battle-scenes.² Of the eight, four are of European, four of Oriental type; the latter are of the peculiar Scythian variety with double curve, *i.e.*, the Cupid's bow, and occur only on Attic vases. Of the Greeks, the Cretans, and only they, used a bow of Oriental type, but it was not double-curved; in fact, the Parthians are the only other people whose bow is known to have shared this peculiarity. To all appearance the Athenians were already at this early date using Scythian archers as mercenaries. The introduction of the hoplite phalanx would by no means tend to oust archery; on the contrary, an organised force of bowmen would

¹ Plut. *Qu. Gr.* 298.

² The references to published reproductions, not all of them satisfactory, are as follows: (a) European, *i.e.*, 'self' bows, *Argive Heraeum* ii, pl. LVII, 10 and 13; Graef. *Vasen der Akropolis*, pl. X, 291; *Fouilles de Delphes* V, 138, fig. 538. (b) Asiatic, *i.e.*, composite bows; Pottier, *Vases du Louvre* iii, pl. XX, A 519; *AZ* 1885, pl. VIII, 1; *Bull. Met. Mus.* xxix, 170, fig. 1; *Eph. Arch.* 1898, pl. V, 1 and 1 a. To the above must now be added certain examples cited in M.

François Chamoux's article in *RA* cxxiv (1945), 55 ff. They occur on sherds of Attic Geometric in the Louvre, either unpublished or reproduced in works not easily accessible. In Pottier's Catalogue they are numbered A 528 (Chamoux p. 83, fig. 7, Scythian), A 530 (*ibid.*, fig. 6, zone of alternate warriors with hour-glass shields and archers with what appear to be Scythian bows. These additions bring the Scythian form into marked predominance.

be of high value, and something of the kind appears to be alluded to in the certainly interpolated passage about the Locrian archers in the *Iliad* (N 712 ff.).

That the European bow prevailed throughout Greece is not surprising; though never important, it may have been given some vogue by the Dorians

a



b

c

FIG. 11.—ARCHERS ON BOEOTIAN FIBULAE.

From Hampe, *Frühe griechische Sagenbilder*, p. 12, fig. 1; pl. 6; pl. 14.

in their early days. It is interesting that the Asiatic bow was known to the Athenians, and so far as our evidence goes, to them alone in mainland Greece in the eighth century. They maintained the European type alongside of it, as

appears from the evidence of the vases, and we know that in the fifth century Athens had archers of her own in addition to the Cretans whom she hired.¹ That the Cretans used the composite bow at least from the beginning of the Hellenic age, and probably very much earlier, may be taken as certain; the bow of the well-known bronze relief of the two huntsmen² can only be composite, as is shewn by the reflexed tips. Farther, Xenophon's statement by implication in the *Anabasis*³ that it was only the superior size of the Persian bows that enabled their archers to outshoot his Cretans, and that as soon as his troops had captured a number of the enemy's bows, the Cretans turned the tables on them shews that the Cretan bow was of the same type. No one could learn the use of the composite bow over-night.

Seventh-century Boeotian fibulae furnish a few examples of both types. On Hampe's no. 60⁴ an archer with a European bow takes part in a land-battle, on no. 140⁵ another similarly armed attacks a ship, on no. 28⁶ a confronted pair, hovering in the air above a ship, bend Asiatic bows one against the other (Fig. 11). Like Attica, Boeotia was in a favourable position for intercourse with the opposite coast.

The wielders of the composite bow on Greek works of art cannot be Greeks of the mainland. When not Scythians, who are distinguished by the double-curved bow later associated with Cupid, they are most probably Cretans, Anatolians being a possible alternative; for only those to the manner born can handle that trickiest of weapons effectively. The fact that it appears chiefly in sea-fights perhaps conveys a hint of its foreign origin.

In the *Iliad* the use of massed archers, or rather the simultaneous use of a considerable number of (anonymous) archers, is introduced several times,⁷ but is quite ineffective; only the λαός suffers casualties, and it emerges clearly from some at least of the contexts that only the λαός inflicts them. With a single exception, in a passage (N 712-18) which there is every reason to regard as an interpolation, the bowmen are not used as a corps, and nothing that we are told or can infer about them shews any trace of the influence which Ionian experience of Anatolian archery might have been expected to exert. The Achaean λαός came to battle armed, some of them, with the European bow, which was presumably used in all periods for hunting and sport,⁸ others trusting, as some Greek φιλοί in the fifth century did, to mere stone-throwing.⁹ This, however, applies only to the rank and file; the bows of the

¹ This is implied in Thuc. vi, 43, where a small number of the archers employed is stated to be Cretan.

² Lamb, pl. xix. It is difficult to see why Bulanda, *Bogen und Pfeil bei den Völkern des alten Orients*, should on p. 64 classify this bow as single stave and on p. 83 claim the Eleusis examples as composite.

³ iii, 3, 7 and 4, 17.

⁴ *Frühe griechische Sagenbilder*, 12, fig. 1.

⁵ *Op. cit.*, pl. 6.

⁶ *Op. cit.*, pl. 14.

⁷ E.g., Γ 79-80, O 313, Π 361 and 773.

⁸ B 773-5, 1156.

⁹ Thuc. vi, 69, 2.

individual heroes who possess them—Teukros, Paris, Pandaros, Dolon—and in the *Odyssey* that of Odysseus are all demonstrably of the Asiatic type. Either horn is mentioned as a component of the weapon¹—those of Pandaros, Odysseus and possibly Paris (Λ 385)—or it is described by the revealing epithets ἀγκύλα, καμπύλα and παλίντονα. It is not without significance that of the five archers of the *Iliad*, three are Anatolians, Meriones, if his solitary lapse into archery on the field (N 650) entitles him to the name, is a Cretan, while Teukros is of doubtful birth and, to judge by his name, half Anatolian. Meriones wins the shooting-match at the games; the bow which is used by him and by Teukros, the other contestant, has no epithets.

If we accept a seventh century date for the Lelantine war, then we probably have a hint of the process of trial and error involved in developing the use of ψιλοί in conjunction with the phalanx in Strabo's account² of the agreement whereby the Chalcidians and Eretrians bound themselves μὴ χρῆσθαι τηλεβόλοις in the struggle in which they were engaged. This is all he quotes from an inscription engraved on a stele in the sanctuary of Amarynthian Artemis; its character and date are alike unknown. Presumably Strabo, or rather his source, knew enough of it to be sure that τηλεβόλοις was neuter and not masculine; otherwise it would be tempting to infer a mutually binding engagement not to bring in mercenary corps of Cretan archers or Rhodian slingers. Whatever the exact interpretation, such an agreement could not well have been made in the eighth century, when all fighting was essentially long-range and the universal and indispensable weapon was a throwing-spear. In any case, it seems likely that τηλεβόλοις applied only to missiles mechanically propelled, *i.e.*, to arrows and sling-stones, which gave the side which possessed them an overwhelming advantage even against akontistai, much more against the phalanx whose spears could not be thrown.

We are equally in the dark about another inscription from the same sanctuary also quoted by Strabo which stated that 3000 hoplites, 600 cavalry and sixty chariots took part in a procession, presumably in honour of the goddess of the sanctuary.³ If the inscription was of the early seventh century, it may possibly have applied to a period of transition in the establishment of the phalanx, when Eretria was not yet prepared to disband entirely her earlier army but maintained a force of chariotry for military ends; it might contain men still of military age but too old to become proficient in the new tactics, which must, moreover, have increased the physical strain. Such a force might conceivably be used to supplement the cavalry. It is, however, much more probable that the chariots of the procession are merely a religious survival.

¹ On the structure of the composite bow see H. Balfour, *The Archer's Bow in the Homeric Poems* (JAI 1921, 289 ff.).

² x, i, 12.

³ x, i, 10.

The spearman, whether he thrusts or throws, cannot dispense with sword or dagger, for his spear may be broken or lost. Warriors on Geometric vases regularly wear a sword, occasionally two, one large and one small, the second no doubt ranking as the μάχαιρα which Homeric heroes carry as well as a sword.¹ On the vases the fighters are sometimes shewn using their swords, now with the edge, now with the point.² Unlike some of its European cousins, the Greek sword never lost its serviceable point; but the weight, size and breadth of blade of a number of Geometric specimens suggest that they at least were designed rather for slashing than for stabbing. The double use of edge and point is reflected in the *Iliad*, in which the slashes greatly predominate over the thrusts. On the Hymettus amphora, as we have seen, swords of various sizes are used, but all for slashes. On the Nessos amphora near the lower end of the proto-Attic series, about 625 B.C., Heracles is on the point of stabbing his opponent in the side with a sword of very moderate length and narrow in the blade.³ An increasing use of the point is indicated in Boeotia; of a series of three sword duels engraved on the catch-plates of fibulae, one exhibits the slash and two the stab with the point.⁴ On a proto-Corinthian oinochoe of the second quarter of the seventh century a hero advances upon a centaur with a sword of moderate length held ready for a stab.⁵ On a bronze relief from Olympia not later than the third quarter⁶ Kaineus, as a pair of centaurs ram him down into the earth, transfixes each with a stab from a short, narrow-bladed sword held in either hand. These are among the early witnesses of a return from the strangely intrusive Central European sword, large, heavy and brandished aloft, to the shorter, narrower and lighter weapon whose use with the point is characteristic of the Mediterranean area and is recommended in the *Epitome of Vegetius*⁷ with a fervour almost as lyrical as that of Archilochus himself. We may reasonably conjecture that it is this close-locked struggle with the point which excited the poet's admiration, and that the bow and sling were chosen as its antithesis because they were the weapons of longest range attainable by the Greeks; perhaps also because they involved the employment of mercenaries, possibly barbarians.

We have traced the adoption of hoplite armour in the Peloponnese, Attica and Crete. In Chios, if the evidence of the silver figurine is sufficient, and in Paros and Euboea, if the data afforded by Archilochus have been rightly

¹ Γ 271-2 = T 252-3.

² Pottier, iii, pl. 20; Hampe, *FgS*, 88, fig. 31. On the vases the sword is generally of moderate length; occasionally it is very long; Schweitzer, *Herakles*, Abb. 24, and an unpublished amphora in Athens, no. 12896. An actual specimen of Geometric date from Athens, nearly perfect, in the Ashmolean Museum, measures 70 cm.; intact, it was c. 73 cm. in length.

³ Pfuhl, *MuZ* 85.

⁴ Hampe, *op. cit.*, nos. 28, 29 and 134, pls. 14 and 15 and p. 25, fig. 6.

⁵ *NC*, pl. 7.

⁶ *Jdl* lii (1937), *Olympiabericht*, pl. 28.

⁷ *Ep. Rei Mil.* i, 12. It may be noted however that Iphicrates when he reduced the size of the shield increased the length of the spear by half and nearly doubled that of the sword. Cf. Diod. xv, 44, 3.

interpreted, we have found it current at approximately the same date. Evidence from Boeotia is less precise; but the Corinthian helmet and the plate-corslet make at least one appearance each on fibulae of the seventh century.¹ There is no evidence that at this period it penetrated any farther north. On the other side of the Aegaeon there is a region where long-range fighting probably persisted after it had been abandoned elsewhere. The Greeks of Asia Minor were always exposed to attack from the interior, and therefore might have to face highly competent cavalry and archers, often mounted, and always armed with the formidable composite bow. It was probably in part for this reason, and not solely because they were wealthy and oligarchic, that, as Aristotle tells us,² the city of Magnesia on the Maeander and many others of the Asiatic Greeks relied on their cavalry even in their wars against their compatriots. Early in the sixth century, however, if not earlier, the change had taken place, for we find in Anacreon the first explicit reference in literature to the porpax shield;³ and it spread, probably at once, to the neighbour state of Lydia. The statement of Herodotus⁴ that Lydians in the great host of Xerxes were equipped 'very nearly' in the Greek manner can hardly mean anything but that they fought as hoplites; the other Anatolian contingents were armed with only minor variations in the older style.⁵ This was apparently maintained by some at least of the Ionian Greeks as late as the middle of the seventh century, for Callinus, whose allusions in frs. 2 and 3 to the joint threat of Kimmerians and Treres shew that he is forecasting or commenting on the events of 652 or thereabouts, exhorts his compatriots to resistance with the throwing-spear and with no other weapon.⁶

The Bronze Men, Carians and Ionians, whom Psammetikhos summoned to his aid at a date somewhat earlier than 663,⁷ must have been hoplites in plate-corslets. Carians of that date could not be anything else, and the Ionians who joined forces with them would necessarily follow suit. They may have been islanders; in any case, they are not the army of any Greek state, but temporary pirates, mercenaries out of employment and seeking it in the most expert company, *πρῶτοι γὰρ οἱ Κᾶρες ἀγοράν πολέμου ἐπενόησαν καὶ ἐστρατεύσαντο ἀργυρίου*. (Aelian, *De Nat. An.* xii, 30.)

There is nothing in Herodotus' statement to invalidate the date based on Callinus as *terminus post quem* for the change of equipment in Ionia. Mainland Greece, on the other hand, had either recently emerged from the

¹ Hampe, *op. cit.*, pls. 15 and 16, no. 105.

² *Pol.* 1289 b.

³ Fr. 81 D: διὰ δεῦτε Καριοεργέος ὁχάνοιο χεῖρα τιθέμενοι.

⁴ vii, 74.

⁵ In the case of the Phrygians this is remarkable, for on the enamelled bricks found at Pazarli and dated by the excavators not earlier than the latter part of the

seventh century hoplites are represented. Hamit Kosay, *Les Fouilles de Pazarli* (Ankara 1941).

⁶ Fr. I, 5 and 14 (Diels²). As late as the reign of Alyattes the main strength of the Kolophonians was still in their cavalry (Polyaen. *Strat.* 2, 2) but this does not of course prove that they had no hoplite force.

⁷ Herod. ii, 152.

Lelantine war or was still in the throes of it when she made the change to hoplite armour; in either case its adoption is almost certainly related, somehow or other, to that enigmatic struggle. The double drain of warfare and colonisation must have brought Greek man-power low; Carian mercenaries may have found employment west of the Aegean, and the Greeks may have learned in their own land tactics more effective and in the long run less costly than their long-established methods. Euboea, in part the theatre of the war, and very possibly engaged overseas as well, receives in the Catalogue of the Ships,¹ undoubtedly by interpolation, a meed of praise which can hardly apply to anything but hoplite tactics; the ὀρεκταὶ μελίσαι record the triumph of the heavy thrusting spear, able on occasion to pierce even the plate-corslet.

The most perplexing witness among the poets is Tyrtaeus; the name is used without prejudice to denote the poems current under it. We have seen that by the middle of the seventh century hoplite armour had been established for a full generation at Sparta, and the songs of a seventh-century poet composing there might be expected to give an unambiguous reflection of these conditions. We have, of course, to reckon with the strongly epic tinge of vocabulary and idiom in elegiac poetry, a characteristic which is naturally especially marked in poems on martial themes. With a little selection and manipulation, however, it should be possible with only epic resources to give a recognisable picture of hoplite fighting, and in the main this is what happens. The war-chariot is not mentioned, the throwing-spear is assigned to the γυμνήτες only, and the νέοι are exhorted to keep the line.² This is quite foreign to the epic battle, in which brave men who are not past their prime fight in advance of the main body, falling back on it when hard pressed and ranging across the field as well as backwards and forwards. At first sight the mention by Tyrtaeus of πρόμαχοι (vi 1, vii 7) might be thought to point to Homeric fighting, but in viii (11-12) the πρόμαχοι are plainly expected to keep the line; as are the νέοι of vii 1. Πρόμαχοι can only mean the front rank of the phalanx, or else the phalanx itself, as forming the forefront of the battle.³ This interpretation does not conflict with the appeal in vii (19 ff.) to the young men not to run away, leaving the old men to fall in the front line.

In Homeric warfare the elderly man was not expected to be among the πρόμαχοι. It is true that Idomeneus, μεσαιπόλιός περ ἑών (N 361), performed prodigies of valour at the direct instigation of Poseidon, but he could not keep it up, οὐ γὰρ ἔτ' ἔμπεδα γυνῖα ποδῶν ἦν ὀρμηθέντι . .

τρέσσαι δ' οὐκέτι ῥίμφα πόδες φέρον ἐκ πολέμοιο (N 512-15).

Evidently, men of his age did not normally fight among the πρόμαχοι, but

¹ B 543-4.

² Frs. viii, 35-8, vii, 1. Diels.²

³ Thus Pindar uses the word (*Isthm.* vii, 35).

formed the main body on which they could fall back at need; whereas in the phalanx the older men necessarily stood in the same ranks as the young.

Novelties in the vocabulary of Tyrtaeus are few, but a new epithet for the shield (κοῖλος) occurs in the first poem (i, 11), and also in the new fragment of Mimnermus.¹ κοῖλος describes the hoplite shield aptly enough, for the offset rim produces an enclosed cavity much more marked than that of most types of the single-grip shield, generally slightly conical or completely flat.² On the other hand, ὀμφαλόεσσα (ix, 25) is in its true sense quite inappropriate, for the hoplite shield never has an omphalos; we do not, however, know what meaning seventh-century Greeks attached to the epithet in Homer. It has been suggested that it applied to the whole bulge of the shield within the offset rim, but this could not be the Homeric meaning (as Lippold thought, who did not distinguish between the single-grip and the porpax shield), and the adjective seems unlikely to have been appropriated in a new and far-fetched sense by the hoplite shield. ὀμφαλόεσσα could, of course, mean possessing many omphaloi (as did the shield of Agamemnon), and might in this sense be applied to the large studs by which in seventh century vase-painting the metal rim of the hoplite shield is often shewn attached to its backing. The poem, however, contains many late elements, as F. Jacoby has shewn,³ and it seems probable that ὀμφαλόεσσα is to be classed among them, as a mere piece of erroneous antiquarianism.

One passage (viii, 21-4) defies rational interpretation—that, namely, which ascribes to the heavy-armed soldier a shield which, as he stood erect, covered him from shoulder to ankle. At one period, and one only, in the history of Greek warfare was such a shield in use—that short period in the Bronze Age during which Minoan influence was dominant in the Peloponnese, or, more strictly, at certain centres in it; that is to say, in the fifteenth and sixteenth centuries. The monuments which exhibit either of the forms of body-shield actually handled by human beings belong to the sixteenth, but that may be fortuitous. Both, however, had undoubtedly gone out before the end of the Bronze Age, for we have the concordant testimony of the Warrior Vase and Stele and of several contemporary sherds to a small shield, coupled with the absence of any representation of the body-shield. The chronological difficulty was not yet fully apparent at the date (1900) when Wilamowitz stated⁴ that these lines proved the ancient armature to have survived in Lakedaemon till the middle of the seventh century, and that they were the genuine work of Tyrtaeus, the allusions to hoplite fighting being later additions. Lippold, to whom we owe a valuable study of Greek shields,

¹ *Antimachi Colophonii Reliquiae* (Wyss), p. 83, 11, 27-8.

² The shields depicted on the Tiryns votives however

are decidedly basin-like (Pl. 18A a).

³ *Hermes* liii (1918) 1 ff.

⁴ *Textgeschichte der griechischen Lyriker*, 114.

sought some years later to shew that the body-shield of Homer was the contemporary Dipylon or Boeotian shield, and later, as has been said, that was, no doubt, the form which the Greeks ascribed to the body-shield, of which there are occasional mentions in Homer; in fact, the archaistic use of the



FIG. 12.—BOEOTIAN AMPHORA IN MUNICH.

From *JdI* liii, p. 96, fig. 2.

Boeotian shield in Homeric and heroic scenes by b.f. vase-painters is almost enough to establish the point. Lippold is followed by Nierhaus, whose theory of the gradual infiltration of hoplite armour allows him to assume the co-existence of the two methods of fighting. There is, however, a fatal objection to the theory which identifies the shield of the *Tyrtæus* poem with

the Dipylon or Boeotian; this latter is not a body-shield at all. Stopping generally well above the knee, it covers no more, or hardly more, of the owner's person than does the hoplite shield, which was recognised as large enough to impair hoplite mobility,¹ and was, in fact, as large as any circular shield current in antiquity, or indeed practicable in use. Lippold and Nierhaus alike have to rely for evidence on a single Boeotian amphora in the museum at Munich (Fig. 12),² on which a Boeotian shield is represented as reaching half-way down the shin of the wearer. Not only is this example unique; the painting as a whole bears marks of lateness, and cannot be earlier than the seventh century. It is true that we cannot apply the test of that faulty handling of the Boeotian shield which we observed in the case of the proto-Corinthian aryballoi, for the shield is shewn full face, obviously suspended by a telamon, since both hands of the owner are engaged with his spear. Its structure, however, is misrepresented, for the rim has become detached from the sides both above and below and developed into something like two pairs of horns for which there is no parallel in Geometric art. Moreover, the owner wears a Corinthian helmet, which occurs on no other Geometric monument, and is from its first appearance associated with greaves and the porpax shield. Only single spears are in use on this vase, which is another unique feature, and they are remarkably large and heavy. Moreover, the owner of the body-shield and another combatant swing theirs in both hands, an action not depicted on any other Geometric vase, and a physical impossibility if a shield of the width represented were really hanging in front of the man by a telamon. When Aias, defending the ships with a 22-cubit spear, adopts this method—*νόμα δὲ ξυστόν μέγα νόμαχον ἐν παλάμῃσι*³—his shield must have been laid aside or slung behind him. No doubt it was some such scene of the good old days which the artist of the Munich vase intended to render, and the obsolete shield indicates his intention.

One more monument is put forward in support of a seventh-century body-shield, *viz.*, the vase of Aristonothos⁴ (Fig. 13), on which a sea-fight is depicted. That the ship on the left is Greek there can be no doubt. It has the straight keel, the upward curving stern-post, the bow fashioned to resemble an animal's head with the snout lying flat on the water which are characteristic

¹ Diod. xv, 44, 2. When Iphikrates reduced the size of the shield and introduced a *pelte* of moderate dimensions, the change was widely accepted and the name of peltast replaced that of hoplite. In Herodotus' account of the arms of the host of Xerxes the Anatolian contingents, whose armature had probably changed little if at all since the seventh century, are repeatedly stated to have had small shields; the hoplite shield must have been Herodotus' standard of size. See vii, 72, 74, 76, 78 and 79.

² *Münchener archäologische Studien*, 451, figs. 21-2; Nierhaus, *JdI* liii (1938), 96, fig. 2; cf. Hampe, *FgS*, 27, V 42. The abnormal length of a shield on an Attic Geometric vase (*AM* xxviii, 1903, pl. iii; Pfuhl, *MuZ*, 14) is due to bad drawing. The knees of the subject are plainly visible below the shield and above a pair of remarkably short shins.

³ O 677. Cf. the hunter on the Lion-hunt dagger-blade.

⁴ Pfuhl, *MuZ* iii, 65.

of Greek craft from the Geometric age onwards.¹ The warriors on deck have helmets with stilted crests and no cheek-pieces, shields of hoplite size with conventional patterns and single spears; there is no indication of greaves, but such omissions, as we have seen, are common. The other ship is of non-Greek build, with curved keel, and with stem as well as stern rising high out of the water; farther, there is a crow's nest with a man in it, poising a spear. This certainly foreign feature recurs on one Greek monument, a Boeotian fibula;² the ship there concerned is in other respects of Greek build. For further illustration we have to go back to the Shardana ships which encounter the fleet of Rameses III on the walls of Medinet Habu. The warriors on this second ship on the vase have helmets like those of their opponents, single spears, and immense circular shields, two of which have



FIG. 13.—THE ARISTONOTHOS VASE.

From Pfuhl, *Malerei und Zeichnung*, iii, fig. 65.

blazons. One of them reaches half-way down the shin of the bearer, the others rest on the deck. There is a parallel for this shield on a terracotta plaque from Sounion³ dating to the period of transition from the Geometric to the proto-Attic style; it also exhibits warriors ranged on ship-board behind huge round shields reaching to the ankle. It may well be that a shield of exceptional size was used on ship-board, where weight and cumbrousness would be of small importance, especially if archery was much used in sea-fights or to repel landings; in fact, the Dipylon shield survives in association with ships on late Geometric vases at a date when soldiers on land generally carry the round single-grip shield, smaller than the hoplite shield. The suggestion that a circular shield of these dimensions was ever employed on

¹ It goes back in fact in all essentials to the Bronze Age; see the L.H. III sherd with a ship painted on it found at Pylos (Koryphasion). Only the animal's head is lacking to make this resemblance complete, and it is by no means universally present on ships in Geometric and archaic vase-painting. See Köster,

Das antike Seewesen, 64, fig. 18 and cf. the illustrations between pp. 86 and 87; *Eph. Arch.* 1914, 108-9, figs. 14-15.

² Hampe, *op. cit.*, pl. 4, no. 62 a.

³ *BSA* xxxv, 173, pl. 40 b.

land is fantastic, apart from the total lack of monumental evidence. We must therefore approach the passage in Tyrtaeus with the knowledge that neither in the seventh nor in any other century of Hellenic history was any round shield in use which could even partly cover a man's shins so long as he remained upright. Even the Dipylon shield would equally fail to illustrate the text, but it had long been obsolete; significantly, there is no single instance of it among the lead figurines of Sparta. The lines immediately preceding the introduction of the shield well describe the stance of the hoplite; the soldier is to stand his ground, a-straddle and with both feet firmly planted; plainly he is not invited to squat behind his shield. This is described as εὐρείη, an epithet which, incidentally, is more appropriate to a round shield than to a Dipylon shield with its constriction at the waist. It is said to have a γαστήρ, a noun never associated with the shield in Homer; if it were possible to ascribe these lines to Tyrtaeus, it would be natural to associate it with the new adjective κοῖλος. It is, however, impossible to attribute to any seventh-century poet the implied statement that the hoplite shield could cover simultaneously thighs and shins below and breast and shoulders; the exhortation, whatever its date, cannot have been a real call to contemporary soldiers. The next couplet is also inappropriate to hoplite equipment, for the Corinthian helmet, the all but invariable concomitant both at Corinth and Sparta of the porpax shield, though the crest rises rigidly to a certain height above the forehead, has no nodding plume, this epic appendage having as we have seen been discarded. It is not easy to see how the shield couplet can have originated; except the once-used epithet ποδηνεκής, there is nothing in Homer which so explicitly describes a body-shield. It is true that once or twice in the *Iliad* a warrior is said to be completely concealed by his shield, but that is because he has ducked to avoid his enemy's spear-cast.¹ Probably the episode of Aias and Teukros in Θ (266 ff.) did more than anything else to perpetuate the tradition of a heroic body-shield, though such protection of the archer is unique in Homer, is not illustrated in Geometric or archaic Greek art,² is not, in fact, Greek, and was probably suggested to the poet by some rumour of Assyrian practice. These four lines, therefore, can only be *pastiche*, a literary parallel to the perverse use of the Boeotian shield by b.f. artists, though probably much later in origin; they can hardly be earlier than the fifth or fourth century. The succeeding couplet is equally suspect, for the exhortation to the heavy-armed warrior not to remain ἐκτὸς βελέων,

¹ So., e.g., Idomeneus when he ducks to avoid the spear of Deiphobos, N 405-8; cf. Y 278.

² A possible exception is to be found on a minute Geometric sherd found at Delphi (*Fouilles de Delphes* v, 38, fig. 538), but the scale is too small and the part of the composition preserved too fractional to allow

of any certain conclusion. If the fragmentary archer is seeking shelter behind the shield of his equally fragmentary companion, one would be inclined, as in the case of the Boeotian amphora at Munich, to see the influence of epic.

'though you have a shield', is appropriate only to the mainly long-range fighting of the epic. Finally, the opening couplet of the address occurs also in vii, where it makes an impressive conclusion, whereas in viii, once the six following lines have gone, there is no place for it. If these eight lines (21-28) are removed, the rest of the exhortation to the heavy-armed men is not only compatible with hoplite tactics, but much more appropriate to them than to the Homeric variety. The recommendation of hand-to-hand fighting in 29-30 is quite in the spirit of Archilochus, though it is not limited to the sword.

In the address to the γυμνῆτες the expression ὑπ' ἄσπίδος ἄλλοθεν ἄλλος . . . πτώσσοντες is generally taken to mean 'sheltering, one here, one there, behind the shield of a heavy-armed man'. If this is so, the exhortation is as unreal as that conveyed in the lines on the shield. It is obvious that the hoplite shield could afford no protection to any one but the bearer, nor could the light-armed rabble be allowed to intrude among the ranks of the phalanx. If, on the other hand, we suppose that the whole poem is addressed to men fighting in the Homeric manner, the suggestion that a hero ever put his shield at the service of the λαός is no less contrary to the facts. If the whole passage is *pastiche*, then one is inclined to look again to the episode of Aias and Teukros for its origin. It seems, however, much more natural to take the expression ὑπ' ἄσπίδος as referring to a light shield carried by the γυμνῆς himself, as by several of the long-range contingents in the army of Xerxes and by the peltasts of the Hellenic armies.¹ That name did not come in till the employment of Thracian mercenaries spread the use of a particular form of shield, but ἀκοντισταί formed a part of Greek light-armed forces from the beginning, and there is no reason why they should have gone shieldless. On this view there is nothing irrational in the lines, which would be equally applicable to troops of the pre-hoplite and of the hoplite period. Humble stone-throwers are not confined to Homer; they took part in the Sicilian expedition² and presumably survived till the days of Alexander. The poet limits his exhortation to the stone- and spear-throwers, the two most completely amateur classes of the Greek φιλοί, omitting all mention of archers and slingers. The omission is striking, since the lead figurines testify to some use of archery at Sparta, and a fragment of a moulded pithos from the Orthia site gives us one of our very few representations of a slinger;³ moreover, Xenophon mentions a contingent of no fewer than 400 slingers from three townships in the Pisatis.⁴ Possibly both classes are omitted because to enumerate them would

¹ E.g., by the Mysians (Herod. vii, 74), who are armed with the ἀκόντιον. This was also the weapon of the peltast: Xen. Mem. iii, 9, 2. Such humble shields might, as we have seen, be mere wicker work.

² Thuc. vi, 79.

³ AO, pls. XV and XVI. Here, as on a Corinthian

aryballos found at Delos (Délös x, 137, fig. 3) the slinger supports from the rear a 'hoplite' who carries the archaic 'Boeotian' shield; i.e., in both cases the scene is stamped as heroic.

⁴ Xen. Hell. iv, 2, 16.

have made the address to the γυμνήτες at least equal in length to the exhortation of the infinitely more important πάνοπλοι. To these the least skilled classes of the ψιλοί form the most striking antithesis, and in spite of the awkward grammar of the last couplet, the return to them at the end forms an appropriate conclusion.

Apart from the eight impugned lines, there is nothing in vii or viii which can be held on archaeological grounds to be inconsistent with a date in the seventh century.

Everything that can be extracted from the tantalising fragments of i is in complete accord with the tactics of the phalanx. The words ἀλλ' εὐθὺς σύμπαντες ἀλοιησεῦ[μεν . . . ἀ]νδράσιν ἀιχηταις ἐγγύθεν ἰσ[τάμενοι] (16-17) indicate not merely close fighting, but a degree of concerted action foreign to Homeric warfare, and all that can be gathered from the remains of the succeeding lines bears this out. Here, as already noted, we find the new epithet (κοῖλος) of the shield; the spear, too, has acquired a new and murderous adjective, ἀνδροφόνος, which in Homer is applied only to heroes and their hands, and which is much more appropriate to the thrusting- than the throwing-spear. Ll. 19-22 unmistakably describe hand-to-hand fighting; we may compare the ὤθισμός ἀσπίδων of Thuc. iv, 96, 2.

To sum up, the joint evidence of literature and archaeology supports the conclusion that the porpax shield, which implies hoplite tactics, was adopted by Corinth and Athens very early in the seventh century, by Sparta within its first quarter, by Crete and probably Boeotia at or about the same time; probably also in the Aegaeian islands, at all events in Paros, Chios and Euboea, though not apparently at once, or at least not universally by the Greeks of the Anatolian coast. That the shield was of Carian origin is guaranteed by the authority not so much of Herodotus, whose account contains some staggering assertions, as of Anacreon,¹ whose phrase διὰ δεῦτε Καρικοεργέος|δόχανοιο χεῖρα τιθέμενοι can only refer to the porpax shield. The hoplite shield, however, came to be regarded as so distinctively Greek that, as the Oxyrhynchus chrestomathy² tells us, some authorities claimed it as an Argive invention. The passage is of great interest because it explicitly refers to the predecessor of the hoplite shield as having had a telamon; the effect of the change was to shift the shield to the left arm. This is plainly opposed to the Cretan account of Herodotus.³

This version the historian must be held tacitly to accept so far as the armour is concerned, since he mentions no alternative, but the statement applies not

¹ 91 B, 81 D.

² *Ox. Pap.* x, 106, ll. 28-36.

³ i, 171.

to the Carians of the eighth or seventh centuries, but to their alleged ancestors in the days of Minos, and the shield which their invention superseded is the immense Minoan body-shield as portrayed on the Lion-hunt dagger-blade from the Fourth Shaft-grave at Mycenae, a monument of the sixteenth century.¹ That dagger and the statement of Herodotus are the sole but incontrovertible direct witnesses to the existence of a shield suspended from the left shoulder. It is obvious that if a shield of a size to be manoeuvred by a central hand-grip held in the left hand has a telamon, that telamon must pass, like the sword-belt, over the right shoulder; but the huge body-shield, whose lower rim was propped on the ground while the owner wielded his spear,² would leave the right arm freer if the telamon passed over the left. Thus Aias was saved from a deadly wound when struck full in front by the spear of Hector; ³ the two telamons strained round his chest protected him—obviously because they crossed. The body-shield, whose appearance on the mainland of Greece seems to be due to Cretan influence, vanished from it certainly not much later than the fall of Knossos *c.* 1400 and possibly earlier; before the end of the Bronze Age it had been replaced by a shield of normal size, as shewn on the Warrior Vase and Stele and on various sherds from Mycenae and Tiryns. In Crete it may have survived longer, though there is no evidence to shew that it did; at all events the votives of Praisos, in the centre of the Eteo-Cretan district, supported by others from the cave of Psychro, shew that it had given way to the omphalos-shield, and perhaps to other forms as well, some time at least before the coming of the porpax shield. The Cretans therefore seem to have telescoped their history and represented two successive changes as one. Herodotus can have given to ὄχανον no other meaning than ‘porpax’, since he implies that it was the kind of handle used by the Greeks of his own day; but the term is general, and is also applied by him to the single central handle; for the ὄχανα which the mice ate ⁴ were attached

¹ See Leaf, *Iliad*, I², 570, fig. 8.

² *Op. cit.*, 569, fig. 3.

³ *Ζ* 402–6. We have no clue to his immediately preceding movements since he has been lost sight of since his colloquy with Hector at the end of the preceding book (N 809 ff.). Obviously the body-shield is behind his back, as we see it on the Lion-hunt dagger-blade.

⁴ ii, 141. Aeneas Tacticus (xxix, 12) describes how men, making arms in secret, plaited shields of wickerwork and adds ὄχανα περιετίθεσαν σκῦτινα καὶ ξύλινα. Hunter, *ad loc.*, calls attention to the leather thong which is sometimes shewn in vase-paintings looped round the shield on the inner face just within the rim. Unfortunately he calls this the πόρπας, following Jebb's note on *Ajax*, 575, which is apparently the source of the error (cf. Pearson on *Phoin.* 1127); and reserves ὄχανον for the diametric bar which in r.f. vase-painting generally runs vertically across the shield

and in which the πόρπας proper, the arm-band, is set. It is inconceivable that περιετίθεσαν should describe the affixing of the two ends of this bar. With regard to the leather thong, it is plain that in the case of the hoplite shield only one loop could serve as a handle, the one, namely, at that end of the diameter at right angles to the πόρπας which when grasped by the hand would bring the blazon right side up; to grasp that at the other end would place the blazon upside down, and the πόρπας would prevent any other from being grasped at all. In the case of the improvised shields of which Aeneas is writing the second loop could be used; but two points on the circumference are not enough to justify περιετίθεσαν. The conclusion that the text is corrupt is inevitable; the simplest emendation is Meineke's προσετίθεσαν.

The use of the leather thong is not obvious. The knots, which are generally distinctly rendered, may have served to attach the blazon when it was inserted

to Assyrian shields, and these are strangers to the porpax, which, moreover, is of metal.¹ It is possible that some glimmer of another tradition about the Carians so far as their inventions are concerned is to be found in a scholion on Thuc. i, 8, where we are told that what they invented were λόφοι and the omphaloi of shields; and the function of the omphalos was to protect the hand that held the central handle against the jar of a blow, which it would have suffered had it been in contact with the surface.

So far as I have been able to discover, the earliest explicit reference to a vital difference between ὄχανον and πόρπαξ is to be found in Plutarch's life of Kleomenes III, ch. xi, where he describes the military reforms carried out by the king. From the best of the Perioikoi he raised a heavy-armed force, the only meaning which ὀπλῖται can have here, for the passage continues διδάξας αὐτοὺς ἀντὶ δόρατος χρῆσθαι σαρίσῃ δι' ἀμφοτέρων καὶ τὴν ἀσπίδα φορεῖν δι' ὀχάνης καὶ μὴ διὰ πόρπακος.² Nothing can be learned from the lexica, which sometimes identify ὄχανος, ὀχάνη and ὄχανον with the porpax and sometimes with the telamon: ὁ δεσμὸς καὶ ὁ λῶρος ἐξ οὗ ἀποκρέμεται ἡ ἀσπίς (Et. Mag. s.v. ὄχανον). In the Oxyrhynchus chrestomathy (col. V, l. 34) ὀχεὺς appears to be used for the hand-grip of the hoplite shield, in the passage which ascribes its invention to the Argives. Sophocles' use of πόρπαξ in *Ajax* 576 seems to be anachronistic, for he plainly describes the handling of the single-grip shield, as Eustathius saw: ὅρα δὲ ὡς οὐδὲ τὸ τοῦ Αἴαντος σάκος πόρπακα εἶχεν ἀλλὰ τελαμῶνος ἤρτητο· ἴσως δὲ καὶ κανόνι μετήγετο (*Il.* p. 995, 19), whereas Hesychius on the same passage interprets πόρπαξ in its proper sense.³ Euripides uses the word with its contemporary meaning in *Tro.* 1196 (in a passage which suggests that the porpax of a well-made shield was moulded to the fore-arm of the wearer) and in *Hel.* 1376, where Paley has an excellent note. On the *Troades* passage we may note that laying the upper edge of the shield against the chin is a characteristic hoplite attitude.⁴

in a wooden shield, as was the case in a number of archaic shields found in the recent German excavations at Olympia; or alternatively they may have fastened a lining of leather to the metal face. Nor is the presence of the thong by any means invariable. For examples of its absence see the shield of Achilles on the Iliupersis vase of Brygos (Pfuhl, *MuZ.* 419) and that of the wounded Greek second from the right on the Forman lebes (*op. cit.* 508 a). The central figure in an Amazonomachia (*op. cit.* 506) has a thong on his shield, but it forms a small circle and has no connection with the ἀντιλαβὴ just inside the rim.

It may be noted that περιτιθέναι is also used in the Oxyrhynchus chrestomathy—πορπακα[s] καὶ οχεῖς περιθεντες. It is conceivable that the object of the thong was to provide material on a campaign for a new ἀντιλαβὴ if one wore out, in which case περιτιθέναι could be used of the thong, which might be regarded as potential ὄχανα. On the whole it seems preferable to suppose that we have here the same corruption

of προς- into περι-.

There is no explanation of the fact that the Attic form is πόρπαξ and not as we might expect, πόρπηξ.—The suggestion sometimes made that the term was borrowed from Laconian lacks support, since in classical Attic formations from πορπάω regularly have α (Aesch. *PV* 61; Eur. *El.* 820; *HF* 959).

¹ For actual specimens from Olympia see *JdI* lii (1937), *Olympiabericht*, 57 and fig. 24, p. 56. Cf. Bacchylides fr. 4 (ap.vet.scr.servata), 8-9, ἐν σιδαροδέτοις πόρπαξιν.

² Cf. Polyb. xviii, 29 for an account of the phalanx armed with the sarisa. Homer (*N* 131 ff.) is quoted as apposite.

³ ἡ λαβὴ τοῦ δπλου· ὁ ἀνοχεὺς τῆς ἀσπίδος εἰς ὃ δ πῆχυς ἀνιέται.

⁴ *Phoen.* 1127 conveys no information, and as the *Rhesus* is post-Euripidean, l. 384 does not concern us here.

The statement of Herodotus about the connection of the Carians with helmet-crests is no less perplexing. ἐπιδέεσθαι seems a curious verb to denote the method of attaching a crest to a helmet unless it were lashed to an upright stem; actually the ordinary method, as one would expect and as actual remains shew, was that of rivetting supplemented by soldering,¹ alike in the case of early Corinthian helmets and of other contemporary forms; but it can hardly be argued that Herodotus meant to describe some other device peculiar to the Carians. Some at least of the compilers of chrestomathies took the words to mean simply that the Carians invented helmet-crests, for the statement that they did is made at least twice,² and Aelian,³ in words which read like a paraphrase of Herodotus, substitutes for ἐπιδέεσθαι the more appropriate ἐνέπηξαν. The assertion is patently absurd, but conceivably it too may be explained by something in the Minoan past of Crete. There is evidence for the existence in Crete between 1600 and 1400 of two types of crestless helmet which do not occur elsewhere—the helmets on the Boxer vase from Hagia Triada, and a helmet with a knob at the top depicted on a funerary vase from Knossos.⁴ These crestless forms are probably indigenous in Crete. A crestless helmet with an outlandish name had some status in the Heroic Age, for it appears in the *Iliad* (K 258) in company with the meticulously described boar's tusk helmet, an undoubted reminiscence of the Bronze Age. The καταίτυξ may be as ancient. In the same period Crete can shew a few crested forms, some of them common to the mainland; probably one came from abroad, and in fact from Anatolia,⁵ and may possibly have given rise to the Cretan tradition told to Herodotus. These Cretan antiquities can, however, have had nothing to do with the Carian crest celebrated by Alcaeus (λόφον τε σείων Καρικόν),⁶ which would seem to have been tall and conspicuous, repeating in exaggerated form the movements of the wearer's head, and consequently cannot have belonged to the Corinthian helmet, the normal concomitant of the porpax shield in Greece. It may have been the stilted fore-and-aft crest which, foreign to Geometric art, appears in vase-painting (*e.g.*, on the Hymettus amphora) at just about the same date as the Corinthian helmet.⁷ That it has Anatolian associations is suggested by the fact that it occurs on some of the enamelled bricks recently found at Pazarli, whereas the Corinthian helmet may be a Greek invention, following hard on the adoption of the porpax shield. To judge by the lead figurines of Sparta and the proto-

¹ *Jdl* lii (1937), *Olympiabericht*, 52–3.

² Schol. on Thuc. i, 8, 1; Pliny *NH* vii, 200.

³ *De Nat. An.* xii, 30.

⁴ Boxer Vase, *P of M I*, 688, 690, figs. 508 and 511; funerary vase, *op. cit.* III, 310, fig. 198.

⁵ *Op. cit.* III, 313, fig. 205.

⁶ 22 B, 58 D.

⁷ We may also remember the tall forward-curving crest of the bronze figurine from Olympia and of the miniature votives from Praisos.

Corinthian aryballoi, only the Corinthian helmet was at home in the Peloponnese.¹

H. L. LORIMER

APPENDIX I: SUPPLEMENTARY ARMOUR

OF the invention of corslet and greaves, antiquity has little to say. Pliny ascribes the former to a Messenian Midias and the latter to the Carians (*NH* vii, 200), the Oxyrhynchus chrestomathy perhaps includes both among the ἑτερὰ ὄπλα ascribed to the Carians (col. V, l. 29).

The plate corslet must have made great demands on the physical endurance of the hoplite, not only because of its weight, but because of the temperature it must have attained when exposed to the summer sun of Greece. It is surprising that it should have continued in use for close on a century and a half; not till the third quarter of the sixth century do we find a lighter form appearing, *e.g.*, in the work of the vase-painter Amasis.² The new type, presumably of leather, was plated only in parts, and sometimes armoured with scales. It is interesting to learn that the best soldiers of the seventh century wore linen corslets,³ presumably copied from Egyptian models.

The seventh century probably saw a good deal of experiment before what was felt to be the true balance of mobility and security in hoplite equipment was worked out, and several pieces of protective armour which failed to establish themselves can be traced to it. In Crete, but (since votives from Olympia tell us nothing of provenance) so far as our evidence goes, not elsewhere, there is the object generally identified with the Homeric mitre,⁴ or at least called by that name, a very short metal apron presumably suspended from the lower edge of the plate-corslet by thin rings which have in some cases survived. In the rest of Greece it would seem that the vital region involved went unprotected until the plate corslet was abandoned for the new and lighter form which could afford to be weighted by a thick circlet of πτέρυγες, leather strips hanging from the corslet's lower edge and plated with metal.

The Germans found in their recent excavations at Olympia a guard for the right shoulder and upper arm, very finely wrought;⁵ it formed part of a deposit which contained both seventh- and sixth-century elements. One arm-guard was already known from Olympia,⁶ and another of Greek workmanship from a sixth-century grave at Noicattaro near Bari,⁷ in which numerous Corinthian objects were found. There is therefore no evidence

¹ On a seventh-century ivory plaque from the Orthia site (*AO*, pl. cviii) a warrior who wears a plate-corslet and greaves has an "Attic" helmet with a very tall stilted crest, but he can hardly be other than a heroic figure.

² Pfuhl, *MuZ*, 218 and 219.

³ *I.e.*, the Argives; *Anth. Pal.* xiv, 73.

⁴ See *BSA* viii, pl. X and p. 258, and cf. *Ol* iv,

pl. LX, p. 158. A fine, full-size mitre was found by the Italians at Axos in Crete. It is now at last published by Levi, *Annuario* xiii-xiv, pl. 13; *AJA* 1945, 295.

⁵ *JdI* lii (1937), *Olympiabericht*, 54, pl. 5, left.

⁶ *Ol* iv, 161, pl. LXI, no. 1001; on pl. LX an elaborate sixth-century specimen in the Berlin Museum is reproduced.

⁷ Gervasio, *Bronzi e ceramica di Bari*, pl. XVI.

that the arm-guard goes back farther than the sixth century, though the first discovered of the specimens from Olympia looks archaic; but an apparently commoner piece—the thigh-piece or παραμηρίδιον—is represented, as we have seen, on the Hymettus amphora, i.e., in the first quarter of the seventh century. To the examples there given another from the seventh century on a proto-Attic sherd¹ from the Acropolis may be cited, but the interpretation is open to doubt. It can be seen that the figure carries over his shoulders an animal whose hind legs hang over his back; possibly it is Heracles bringing back the Arcadian deer. It is unlikely that such a figure wore hoplite armour. It may be that we have merely an attempt to render the muscles, especially as there is an unexplained mark on the hip. A bronze figurine of about the middle of the sixth century,² representing a warrior with helmet and corslet, has also a pair of delicately engraved thigh-pieces. This figure comes from Longa in Messenia, and, if not Spartan, probably reflects the contemporary Spartan style; a contemporary figurine from Sparta (unpublished) has a plain pair. At Olympia a unique specimen was found of a thigh-piece made to cover only the lower half of the thigh and the knee-cap.³ The muscles are rendered in relief, so crudely that it is difficult to date the piece later than the seventh century, especially as it was a votive dedicated in the principal sanctuary of Greece. There is no evidence for the use of the παραμηρίδιον in the fifth century.

To the articles enumerated must be added the belt (ζωστήρ?) worn by Penthesilea on Shield A, *infr.*, p. 135, where see further references, and the gorget worn by the figures on both shields. No metal counterparts are known.

APPENDIX II: THE SHIELDS OF TIRYNS.

For the partial publication here of the shields of Tiryns I am indebted to the generosity of Professor Emil Kunze of Munich and to his good offices, which brought me into contact with Professor Kurt Müller of Göttingen and Miss Gisela Richter of the Metropolitan Museum, New York. To the former I owe photographs of both sides of the principal sherd of the smaller shield, to the latter a microfilm of a photograph in the Museum of the outer face of the larger; to both I am deeply grateful.

Separated for some years from the material of the fifth volume of *Tiryns*, which was virtually ready for publication some considerable time before the outbreak of the war, and with no immediate prospect of recovering it, Professor Kunze is obviously not in a position to answer questions suggested by the photographs and I have put none to him; should errors in the ensuing account emerge hereafter, I am solely responsible for them. It is obvious

¹ BSA xxxv, pl. 54 e and p. 185.

² *Deltion* 1916, pl. A; Lamb, *G and R Bronzes*, pl. 28 b, p. 85. Cf. the magnificent pair worn by a

fragmentary figure by δ Ανδρς on a sherd from the Acropolis, Pfuhl, *MuZ*, 240.

³ *Öl* iv, pl. LX, no. 996, p. 160.

that detailed comment must await the publication in full of both shields and above all of the thorough-going elucidation and exposition which Professor Kunze alone is qualified to supply, but some features of the armature are sufficiently clear to warrant their use in this sketch of its development.

Besides the photographs I have used notes which I made in 1938 in the museum of Nauplia, where the shields were then exhibited.

The shields, though miniature, are of a size unusual in votives, the larger being 15 or 16 inches in diameter; they are circular, perfectly flat, and are each equipped with a projecting central handle and decorated with a painted figure design on each side; as considerable use is made of outline, much more detail can be established than is usual in Geometric painting.

On the outer face of the larger shield (A) a battle of Greeks and Amazons is in progress waged by two pairs of combatants; the larger has been plausibly identified with Achilles and Penthesilea,¹ and these names will be used, without prejudice, for convenience sake. The figures have all suffered considerable damage, but the following features are certain. Achilles and the Amazons wear tall fool's cap helmets with a forward curve,² the second Greek a crestless skull-cap which projects a little at the back and what appears to be a gorget, a piece of armour of which I can find no other example than the similar article worn by the warrior on the smaller shield, B, where it is rather less distinct. This shield, of which much less is preserved, supplies an example of a third type of helmet which has a 'fore and aft' crest normally stilted, but here, owing to the exigencies of the circular frame, resting directly on the head-piece, and a 'deer-stalker' peak over the forehead. The face is to some extent exposed, but there is a prolonged and exaggerated earflap which might almost be called a cheek-piece. Though this type of helmet becomes much more frequent in the ensuing period, it is well established in Geometric, for it occurs on a fragmentary vase and a sherd, both in the Vlastos collection.

It is certain that both Greeks wear chitons, for though their busts are painted in silhouette, below the waist a very short skirt appears, decorated with horizontal bands. Penthesilea's bust is also in silhouette; below the waist she has a patterned skirt, much longer than the chiton of her opponent; it is partly preserved on the sherd found and published by Schliemann, which also exhibits the lower half of her companion clad in a similar skirt from which

¹ By Hampe; see *FgS*, 81.

² This type of helmet occurs in the Bronze Age, in the later phase of LH III, a period in which certain traces of Near Eastern influence become apparent; see *MV* pl. XL, nr. 422, perhaps also Reichel, *Homerische Waffen*², 109, fig. 50, on which the curve is reversed. A similar helmet appears on a very crude sub-Geometric sherd from Sparta; see *BSA* xxviii,

57, fig. 4 and xxxiv, 121, pl. XXIII. Mr. Lane suggests that the profile of the head indicates Semitic influence. A terra-cotta statuette of a warrior found in Cyprus is similarly equipped; see *SCE* ii, pl. 204. There are also examples on Geometric Bronze figurines, mostly of charioteers; they wear them with the curve backwards, as is natural, since they have to meet a rush of wind.

a bare leg emerges.¹ Presumably the Doric peplos is indicated, though there is a curious resemblance to the mantle often worn over a short tunic by Assyrian men in ceremonial dress.² The dark silhouette of the busts with no further hint of chiton or peplos probably indicates the presence of a jerkin, presumably of leather. Over this Penthesilea wears another piece of equipment, unique on the shields, though occasionally found elsewhere, viz., a broad girdle, presumably the ζωστήρ of epic.³ Its presence lends colour to an alternative interpretation of the subject as Heracles slaying Hippolyte for her ζωστήρ.⁴

Achilles, grasping the peak of Penthesilea's helmet, the long tail of whose crest flutters wildly behind, aims a slash at her with a large heavy sword of Geometric type, Penthesilea, her right foot braced against Achilles' shin, attempts to retaliate with a spear; neither has a shield, the artist evidently wishing to keep the main lines of his composition clear. The second Amazon, however, extends a one-handled shield in front of her, as does her antagonist, the second Greek, holding his reserve spear in the same hand; with his right he aims a thrust with his other spear. Both shields are shown in profile; the Amazon's is cross-hatched, the Greek's in silhouette, possibly to suggest that the one is of wicker, the other of leather.

The Warrior on B is clearly rendered; he aims a slash with a large sword at a now vanished opponent, grasping in his other hand the central handle of a small shield with a strongly convex face shown in profile. Two small spears whose shafts are sharply bent to accommodate them to the frame of the design appear beside his hand, and must of course be thought of as grasped. The hand in question should be the left, and on the side next the spectator; it is actually on the far side, as is the scabbard of the sword, but the inverted position of the hand that wields the blade suggests that the artist had qualms. The outline, though not the interior hatching, of the scabbard is shown running across the warrior's chest, a point which has some bearing on the interpretation of a curious feature on A. He wears boots which come well above the ankle and leggings whose cross-hatching shews that they can hardly be meant for metal greaves. He also seems to have a jerkin over a short tunic, but the V-shaped design on the thighs seems to be intended merely to break up the surface, and not to represent the παραμηρίδια found occasionally on

¹ Schliemann, *Tiryns*, pl. XXIII a; Pfuhl *MuZ* iii, 23 B.

² See, e.g., *Assyrian Sculptures in the British Museum*, pls. XXVII, XXVIII, XXX.

³ A ζωστήρ is shown in a series of bronze figurines from Olympia (eighth to sixth century) published by Kunze in *Antike und Abendland* ii, 101 ff., figs. 9-13, and representing according to him Zeus in the character of a warrior, with tall peaked helmet and ζωστήρ.

⁴ So Buschor, see Kunze, *Gött. Gel. Anz.* 1937, 296. The balance of probability favours Hampe's view, for

in the immediately succeeding period identifiable mythological scenes are drawn mainly from the Cycle:—Paris shooting at Achilles, *sup.* figs. 7 and 9 d; the rape of Helen and the Dioscuri coming to the rescue, probably narrated in the *Cypria*, *VS* pl. 22, 1 c; the suicide of Ajax, *VS* pl. 23, 2 a; the Judgment of Paris, *VS* pl. 40 c; Bellerophon and the Chimaera, presumably from the *Iliad*, *VS* pl. 30, 2 b and 35, 3 a. There is no example of Heracles in an Amazonomachy, and the combat with Hippolyte first occurs in Late Archaic vase-painting.

later monuments and also *in corpore*. On the other hand, he appears, as noted above, to have a gorget.

To return to A: there is no obvious interpretation of the two small concentric circles close by the knee of Achilles; they may represent a highly stylized attempt to render musculature or bony structure. His feet are missing; the other characters wear boots, but there is no trace of greave or legging on any leg preserved.

With regard to the object slung across the chest of Achilles, the intention of the artist is obscure, but it is noteworthy that the reserved space within it closely corresponds to the shape of the sword-blade, of which it would seem to be the sheath; it is, however, upside down, the point end appearing over Achilles' shoulder. Further scrutiny reveals the fact that the outlines of his shoulder and side run across the object, reserved space and all. It will be remembered that on B the invisible part of the scabbard is shown by a like device; and the A artist's similar determination to instruct the spectator about that which he could not see is further exemplified by the fact that Achilles holds his sword by the blade so that the hilt may be completely revealed.¹ Only one interpretation of these puzzling data occurs to me: the artist is struggling to represent not only a momentary position but one of which a great part would be concealed from the spectator.

Achilles has made his throw and failed to retrieve his spear, the gift of the gods to Peleus; he never carries a second. For a parallel we may turn to *Il.* xxi, 169 ff. Penthesilea, who had carried two and has thrown one without effect, seeks with the second to catch him at a disadvantage; Achilles, just in time, has drawn his sword with so violent a gesture that the scabbard has swung up behind his back and stands for an instant upside down. All that the spectator would see in real life would be the point end of the sheath over Achilles' shoulder and the hilt end at his waist,² and this the artist has indicated by continuing the lines of the hero's torso across the scabbard.

That he was a man of originality intent on capturing momentary poses is further illustrated by the figure of the fallen man at the bottom of the design. There is nothing to indicate an exergue; the man lies on the field of battle, and his small stature shows, as in the case of the second Greek and Amazon, that, like them, he is not to be thought of as in the first plane. In his death-agony he has half rolled over, and lies with one leg pressed on the ground; it shews only half the thickness of the other, which does not touch the earth. The dark object before his face is his clenched hand. Nothing like this ob-

¹ Cf. the swordsman in the neck-panel of the Hymettus amphora, fig. 4 *sup.*

² On B the lower end of the sheath is straight-edged, as is that of the swordsman on the body of the Hymettus amphora, fig. 4 *sup.* The rounded end of Achilles' scabbard however does not lack parallels; see Pfuhl,

MuZ iii, 17; Hampe, *Frühe griechische Sagenbilder*, pl. 23, and fig. 1 *b sup.* For analogous treatment of a sword which would be partly invisible, see that with which Ajax commits suicide on a proto-Corinthian aryballos, *VS* pl. 33, 2 *a* and p. 144.

servant realism appears on any extant monument until a generation or perhaps half a century later we find the same theme treated on proto-Corinthian aryballois of the second quarter of the seventh century (Figs. 8 *c* and 9 *d sup.*). The whole composition suggests the influence of free painting, which had doubtless been practised for some time on the walls of eighth-century temples, as do also the free movement of the figures and the crudely successful attempt to portray on the faces of the combatants the fury of battle, on that of the dying man an anguish and despair to which the reproduction does scant justice.

This, however, is hardly enough to account by itself for the development of the new technique from that of the early prothesis vases with their rows of mourners and monotonous processions of chariots; it is reasonable to look for some powerful external stimulus at work. A possibly Assyrian trait has already been noted; one more marked is the cloth covering the chariot horse on B. True, it betrays a misunderstanding; the covering worn in battle by horses in the Near East in the Bronze and the Early Iron Age is undoubtedly a piece of armour and not, like that on B, a figured cloth. It is enough to cite a relief from Nimrud in the British Museum, on which the horse of a war-chariot in action is shewn wearing what is probably a leather coat liberally sprinkled with metal discs,¹ but might by one to whom the actual object was strange be easily mistaken for a decorated cloth. Some contact with Assyrian art is unmistakable here, and warrants the suspicion that the circles on Achilles' leg are derived from the highly stylized treatment of the knee on many Assyrian reliefs.²

Far more illuminating, however, is Dr. P. Jacobsthal's interpretation of the bird which fills a blank space behind the head of Penthesilea; it is the vulture sometimes shewn on Assyrian reliefs hovering over the field of battle or devouring the slain.³ Ornithologically speaking, the representation leaves much to be desired, but so do the Assyrian examples, where the activities of the bird put its identity beyond doubt; on the shield the hooked beak stamps it as a bird of prey. In this character the position of the bird on the Trojan side of the field, corresponding to that of the brandished blade of Achilles on the other, and its sinister preoccupation with the doomed Penthesilea become significant; and the artist of A gives the impression of doing nothing without design.

The death agony of the Greek already referred to affords another point of

¹ Layard, *Mon. of Nineveh*, i, pl. 28; Nuoffer, *Der Rennwagen im Altertum*, pl. 6, nr. 25.

² See, e.g., *Assyrian Sculptures in the British Museum*, pls. XXVII, XXVIII, XXX.

³ *Ibid.*, pls. XVII, 2, XVIII and XXIII, 2. Another example of the bird of prey in Geometric art appears on an amphora of the latest phase (c. 700) in the British Museum. Oriental traits are multiplying;

in the neck-panel a somewhat lifeless lion lays one paw on a recumbent deer. The only touch of vivacity is furnished by a bird of prey which from the upper corner behind the lion swoops towards the prospective feast. Add now the works of the Vulture Painter, p. 139 below and Fig. 2, and the bird flying over Paris in Fig. 9 *d* above.

contact with the art of Assyrian reliefs, on which the dead and dying are constantly exhibited in scenes of battle, sometimes lying on the ground on the lower edge of the relief, sometimes, in an attempt to indicate that they are remote from the spectator, immediately below the upper. That the Greek artist of this date had some acquaintance with this technique appears not only from the shield but from a Geometric sherd in the Louvre,¹ on which a land battle is depicted, at one end of which four corpses lie one above the other; the topmost is smaller than the other three. This looks like an attempt to render bodies lying on the field one behind the other in four receding planes. The Greek extended the theme by including it in scenes of naval warfare and of descents on the land from a ship.²

One feature in the chariot scene on B still calls for explanation—the two wavy lines which run parallel with the rim of the shield between the heads and forelegs of the horses. These appear to be an indication of the terrain such as is frequent in Assyrian art from the bronze gates of Shalmaneser III³ onwards. Probably the upper line represents the horizon; conceivably the two together represent a river, but this is less probable.

Assyrian influence can have reached the Greek potter only through the medium of imported articles, and even then only indirectly. In this case the immediate source of inspiration is surely in free painting; it is difficult to resist the surmise that it was no farther off than the walls of the Geometric temple of Tiryns, near whose doors our artist produced his votives. What the painter of his model had seen remains a mystery; in fact the exceedingly small number of Oriental artefacts from Geometric sites contrasts with the comparatively numerous indications of Oriental contacts, a puzzle which persists in the Orientalising period. Though the precise date of the resumption of direct intercourse between the Aegean and the Near East cannot be fixed, the date cannot well be later than 750. In Cyprus we have a Geometric krater with purely Geometric decoration;⁴ the Attic amphora in the Cesnola Collection in the Metropolitan Museum, New York, is rather later. A likelier channel of influence than Cyprus, always a backwater, is Al Mina, where island Geometric of the late eighth century is the earliest Greek ware known.

Despite the unmistakable evidence of acquaintance with foreign models, the artist or artists of the shields maintain a sturdy independence. These are truly Greek, and their kinship with the Aristonothos vase is unmistakable.

¹ Pottier, *Vases du Louvre* A 519; cf. A 527.

² Köster, *Das antike Seewesen*, figs. 21 and 24, between pp. 86 and 87. See also F. Chamoux, 'Ecole de la grande amphore du Dipylon,' *RA* ccxiv, 1945, 93, fig. 9 and 86, fig. 8. I regret that M. Chamoux's article reached me only when my own was already in page proof; it contains an interesting analysis of Attic

Geometric style; see especially the discussion of the remarkable sherd fig. 7, p. 83. For a casualty in a naval battle who has fallen into the water, see p. 81, fig. 6, A 529.

³ L. W. King, *Bronze Reliefs from the Gates of Shalmaneser*.

⁴ *SCE* ii, 79 ff., pl. XIX.

ATHENIAN WORKSHOPS AROUND 700

(i) THE VULTURE PAINTER

London. Pair of stood bowls 1910. 6-16. 1 and 2 (detail Fig. 1).

New York. Pair of stood bowls (*Metr. Mus. Bull.* 1911, 35 figs. 8-9).

Paris, Louvre. Pair of stood bowls and one lid (Fig. 2).

Munich. Funnel-mouthed aryballos.¹

Kiel. Mug 85.

The form of these vases is precise. The uniform alternation of dark and light in the decoration (which is enhanced by the use of the chequer-pattern on at least one of each pair of bowls) is punctuated at intervals by panels; in them isolated motives appear, their dark silhouettes compelling attention in fields comparatively free of filling ornament (cf. Fig. 2, lid). Specific panel-motives which recur are:

A. Cross-hatched triangle, surmounted by a volute-member carrying three small triangles painted in outline (cf. Fig. 1).

B. Complex of four leaves, with rays painted in silhouette in the intervals (cf. Fig. 2, bowl).

C. Water-bird, with long neck curving backward (cf. Fig. 2, bowl).

D. Bird of prey, folding its wings as though alighting (cf. Fig. 2).

Other panel-motives occurring are (on London 1910. 6-16. 1) deer, sphinx (?), cock, goat, (on London 1910. 6-16. 2) two sphinxes confronting across an ornament of the type A (Fig. 1).

While the general similarity of form and decoration marks the six bowls and lid as products of a single workshop, the recurring panel-motives suggest that the panels were painted by a single painter. Motives A and D appear in almost identical form on the funnel-mouthed aryballos in Munich; while the mug in Kiel bears two confronting birds of prey whose characteristic crouch confirms the attribution to the vulture family.

Note.—Acknowledgement is due for kind permission to publish photographs to Directors and Curators of the National Museum, Athens, the British Museum, the Cleveland Museum of Art, the Louvre, the Pennsylvania University Museum, to Mrs. M. P. Vlasto and T. B. L. Webster; and for photographs to E. Kunze (Fig. 2), the late M. P. Vlasto (Figs. 3, 4a, 6a-b, 7a, Plate 22a), R. M. Cook (Fig. 4b), T. B. L. Webster (Fig. 5), Cleveland Museum of Art (Plate 21), German Institute in Athens (Plates 20b and 22b): also to J. D. Beazley, R. M. Cook, and T. J. Dunbabin, for drawing my attention to unpublished vases, and to P. Kahane for introducing me to the problems of Late Geometric. The universal debt to M. P. Vlasto for rescuing so many grave-groups from dissipation is well known.

I have not had opportunity to study the connections of Attic Late Geometric workshops with the circle of the 'Painter of the great Dipylon amphora in Athens' (G. Nottbohm *JdI* 1943, 1 ff.).

¹ Cf. *BSA* xxxv 212.



FIG. 1.—DETAIL OF ATTIC BOWL. LONDON 1910. 6-16. 2.



FIG. 2.—ATTIC BOWL AND LID, IN PARIS.

A connection with an amphora in New York has been remarked.¹ The form of the amphora has a similar precision; dark and light alternate in the decoration (enhanced on the neck by the chequer-pattern), while in the shoulder-panels particularly the dark silhouettes are isolated against a light ground. Specific points of close resemblance with the stander bowls are the motive A (in panels on the amphora, subject to lateral compression due to crowding), the exaggerated flexibility of feline bodies, male human heads (cf. the charioteers of the amphora with the sphinx, Fig. 1). The New York amphora was made in the same workshop as two amphorae by a single hand in Würzburg and Copenhagen.² Specific close resemblances between the amphora in Würzburg and the stander bowls are motive A and the figures of goats (cf. London 1910. 6-16. 1).

The six stander bowls and lid, the aryballos, the jug, and the three amphorae are products of a single workshop; the individuality of one craftsman is impressed on the general scheme of decoration, on the choice of panel-motives and the conception and execution of animal forms—perhaps also on the precise forms of the vases themselves. The acme of this workshop's activity, as seen in these vases, falls in the opening years of the Orientalising style in Attica: for, on the one hand, the perpendicular form of the amphorae and the emphasis laid on figure-panels and zones in the general design³ mark these vases as no earlier than the earliest Attic Orientalising (as *BSA* xxxv Pls. 38*b*, 39-40, 43-45); and on the other hand, with the wealthier customers demanding vases painted in the modern style, a workshop which retained so much of the old-fashioned method of decoration could not in the bloom of the Orientalising style retain the wealthy clientèle which the New York amphora presupposes.

(ii) THE EARLIEST ORIENTALISING WORKSHOPS

The workshop which assiduously followed the progressive tendencies at this time was that which produced the Orientalising vases described in *BSA* xxxv 176 ff. ('The Mesogeia Painter'). In addition to the four hydriai and krater-fragment there illustrated,⁴ several smaller vases (Figs. 3 and 6*b*) seem to be products of this workshop; they are reported to have come from the same graves as the hydriai in the Vlasto Collection, and their fabric and

¹ *Metr. Mus. Bull.* 1911, 33 fig. 7; *BSA* xxxv pl. 47, pp. 179 f.

² Würzburg 79; Langlotz, pl. 7. Ny Carlsberg 2761; *From the Collections of the Ny Carlsberg Glyptothek* ii 115 fig. 2. See *BSA* xxxv 179 f.

³ The exaggerated upright form seen here is only reached on the threshold of the Orientalising phase.

Specific Orientalising motives on the vases of this workshop are spirals and the leaf-complex (motive B). For the proto-Attic element in the drawing of figures on the three amphorae cf. *BSA* xxxv 179 f.

⁴ *BSA* xxxv 176 fig. 2, pls. 43-46. The handle-zone on the reverse of the hydria, *ib.*, pl. 44 here Plate 22*a*.

glaze is of the same quality.¹ The decoration of the stood bowl, Fig. 3, bears evidence of the rapidity with which the discipline of Geometric design could collapse—even on vases of a type which lent itself to the traditional system of decoration—when caught up in the progressive movement.



FIG. 3.—ATTIC BOWL, IN VLASTO COLLECTION.

The pioneer workshop was that of the painter of the Analatos hydria.² It turned out amphorae, hydriai, krater, stood bowls,³ plaque. In the products of this workshop the vase-forms are elegant, the decoration is well

¹ The kotyle, Fig. 6b, was found with the hydria *BSA* xxxv pl. 46b c; two stood bowls (one here, Fig. 3) and a kotyle with the hydria *ib.* pls. 45, 46a. Cf. *ib.* p. 203.

² Cf. *BSA* xxxv 172 ff., pls. 38b-42a.

³ *BSA* xxxv pl. 40a; lid *ib.* pl. 42a; another example in the Vlasto Collection.

balanced and adapted to the shapes of the vases; and the draughtsmanship is clean, confident and distinguished.

The Potter's Quarter in Athens—to judge from the material accessible up to the present—seems at the beginning of the Orientalising phase to have contained no more than three flourishing workshops which attracted the higher class of customers by producing a range of expensive vases for grave and cult turned out in the progressive style. The leader of this style was the painter of the Analatos hydria. In imitation of him the workshop of the Mesogeia Painter turned out a range of vases for purchasers who demanded the Orientalising fashion in pottery but were satisfied with inferior craftsmanship. The third of these workshops was that of the Vulture Painter; its wares were little inferior in craftsmanship to those of the pioneer workshop; they are characterised by conservatism in the decoration, not without a touch of affectation. The subsequent history of these three workshops cannot be traced. A loss of delicacy, both in vase-form and in draughtsmanship, characterises their later products,¹ and goes hand in hand with the substitution of secular motives of the bestiary for the orderly choirs and processions of aristocratic funerals.²

(iii) THE LATE GEOMETRIC LION PAINTER

Pitcher formerly on Athens market (*AJA* 1940, pl. 27. 3).

London. Pitcher 1913. 11–13. 1 (detail *JHS* 1932, 273 fig. 4).

London. Pitcher 1905. 10–28. 1.

Vlasto Collection. Kotyle (Fig. 4a=*AJA* 1940, pl. 28. 3).

Manchester. Kotyle (Fig. 4b).

The pitcher on the Athens market and the lion-kotyle in the Vlasto Collection (Fig. 4a) have been brought to light by P. Kahane, who names their painter the Lion Painter.³ The common origin of the lions on these two vases is immediately manifest in the comparison of them with the London pitcher 1913. 11–13. 1, where the laterally compressed masses of the lion's body resemble those on the Athens pitcher, while their balancing and intersection is similar to the Vlasto kotyle. Close examination of the unpublished details of the decoration on these two pitchers might well lead to further attributions to the Lion Painter, since his distinctive stylisations invite recognition. With the lion-kotyle were found two proto-Corinthian kotylai, also in the Vlasto Collection (Figs. 6a, 7a).⁴ Form and system of decoration put the Manchester kotyle (Fig. 4b) in the same workshop as the Vlasto lion-

¹ Cf. *BSA* xxxv 176. Würzburg 79 and Ny Carlsberg 2761 seem to show the same tendency in the third workshop.

² For the succeeding phase cf. especially *CVA Berlin* i pls. 10–16.

³ *AJA* 1940, 479 f., 482, where the naming of the painter is attributed to E. Kunze. Cf. Kunze *Gött. Gel. Anz.* July 1937, 290, where the two pitchers in London are connected.

⁴ Cf. Kahane *AJA* 1940, 479.

kotyle; the coursing dogs in the panels reflect the stylisation of the lions, the masses being more or less equally balanced (though here with diminished effect owing to the opening of the crutch) and the head and features an excrescence.



a



b

FIG. 4.—ATTIC KOTYLAI. (a) VLASTO COLLECTION. (b) MANCHESTER.

(iv) THE AFFINITIES OF ATHENS 897

Athens. Amphora 897 (Plate 20b: *JdI* 1900, 53 fig. 114; detail *BSA* xxxv 182 fig. 4).

Paris, Louvre. Amphora CA 1789.

Bonn. Fragment Inv. 15 (Plate 20a: *AM* 1890, 10 (II, 3); B. Schweitzer *Herakles* 35 fig. 9).

Cleveland. Amphora 1927. 27. 6 (Plate 21: *Bull. Cleveland Mus.* June 1927, 99).

The amphorae Athens 897 (Plate 20*b*) and Louvre CA 1789 were observed by E. Kunze to have been painted by one hand.¹ The decoration of the two vases is similar, and the two zones of coursing dogs on each vase were certainly painted by the same man. The dogs of the Manchester kotyle (Fig. 4*b*) show a striking affinity to those of the amphorae. Scheme and stylisation bear close comparison. The Manchester kotyle was undoubtedly produced in the workshop of the Lion Painter, but its painter was in close touch with the painter of Athens 897. Another link between these two workshops is provided by the files of long-legged birds, derived from the herons of the earliest proto-Corinthian vases.² At the time when Attic vase-painters were turning from the full-bodied bird-file frequently seen on pitchers and cups of the type



FIG. 5.—ATTIC GEOMETRIC CUP IN MANCHESTER.

Fig. 5 to a linear stylisation which culminates in the bent-line pattern of Fig. 6*b*, the Lion Painter and the painter of Athens 897 affected a peculiar stylisation of the old-fashioned file, with excessive lengthening of the birds' necks.³ The workshop that produced Athens 897 had perhaps not long been accustomed to the production of amphorae; for the general system of decoration and the division into panels of the main zones of ornament reflect the manner of pitcher-painters.

The fragment in Bonn (Plate 20*a*) immediately falls into line with Athens

¹ Gött. Gel. Anz. July 1937, 290. R. S. Young's dating of Athens 897 'at the very end of the eighth century or the beginning of the seventh' (*Hesperia Suppl.* ii 170) is based on the compression of three typologically distinct phases in one generation—Ripe Geometric (as his grave XVII *ib.* p. 76 ff.; cf. P. Kahane *AJA* 1940, 482), Late Geometric (as graves Dipylon VII and XIII, Spata I, III–IV, and the Late Geometric amphorae; cf. Young, p. 77 and *passim*) and Early Orientalising (*id.* p. 232). Kahane's scheme (*loc. cit.*) allows the whole of the eighth century for the development of the Ripe and Late Geometric styles,

L

and therefore offers a substantially higher dating of the majority of Ripe and Late Geometric vases.

² E.g., K. F. Johansen *Vases Sicyoniens* pls. 6. 1; 10. 1–3.

³ Lion Painter, three pitchers, page 143 (cf. *AJA* 1940, pl. 27. 3). Painter of 897, amphora Louvre CA 1789. For this unusual stylisation of the bird-file cf. also the pitcher-begotten amphora Hague 3491 (*CVA Musée Scheurleer* i pl. 23. 1; cf. *ib.* pl. 23. 5), mug Leyden (Brants *Description of Class. Collection* ii no. 51 pl. 9), and stand bowl Athens (*Jdl* 1899, 215 fig. 102).

897 (Plate 20*b*): the same zone, like filling, the same coursing hounds; only, here the balance of the masses of chest and rump is less pronounced and the body is somewhat slenderer. The workshop is presumably the same, so too the hand; typologically the dogs in Bonn are slightly more developed. The zone on the belly of the Cleveland amphora (Plate 21) has the same position as the lower dog-zones of Athens 897 and Louvre CA 1789; filling and scheme of coursing hounds are similar. The actual form of the dogs shows the same tendencies as the Bonn fragment, but advanced a step further: the balance of masses has now disappeared. The typological advance in the drawing of the dogs is answered by a like evolution in the vase-form itself; with its slim shoulder and full complement of plastic snakes, the Cleveland amphora reaches towards the 'perpendicular' type of the opening years of the Orientalising phase (as *Mon. Piot* xxxvi pl. 2). The dogs of the Cleveland amphora derive from the type of the painter of Athens 897.¹ But it is hard to believe that the vase itself was produced in that painter's workshop.²

(v) THE WORKSHOP OF ATHENS 894

Athens. Amphora 894 (Plate 22*b*: *JdI* 1899, 197 fig. 61).

Cleveland. Amphora 1927. 27. 6 (Plate 21: *Bull. Cleveland Mus.* June 1927, 99).

Agora. Amphora and small vases (Young *Hesperia Suppl.* ii 55 ff., figs. 37-39).

Athens. Cauldron 810 (*AM* 1892, pl. 10).

Athens. Fragments of open vase (*AM* 1892, 226 figs. 10 ff.).

The Cleveland amphora is carelessly decorated (e.g., the bands of glaze above the foot, painter's error on the right-hand side of the shoulder in Plate 21); but the vase-form and the emphasis laid on representational scenes are proof that it was produced in a progressive workshop. Nearest of kin to it is the amphora from grave XII in the Agora.³ Both vases aspire to the perpendicular form, with plastic snakes on lip, shoulder and handles. The need for emphasis in the decoration of the shoulder is satisfied on both vases by the chequer-pattern, whose alternation of dark and light is reinforced

¹ Other coursing hounds in the style of Athens 897: amphorae in Athens (*BSA* xxxv pl. 26. 1) and Mannheim; jug in Empedokles Collection, Athens (*BSA* xxxv pl. 25. 3-4); fragments in Tübingen 1464; Agora (Young *Hesperia Suppl.* ii, B 16 fig. 80, C 143 fig. 133). That this stylisation was an individualistic one is clear from the variety of other forms of dogs seen on more or less contemporary vases: cf. kotylai Athens 15271 (*AJA* 1940 pl. 28. 2), Agora (Young *loc. cit.*, C 30 fig. 109), Eleusis 882 (*BSA* xxxv 183 fig. 6); amphora Oxford 1935, 18 (cf. *BSA* xxxv 182 fig. 5); mug (*GVA Copenhagen* ii pl. 73. 1). Earlier dog-zones (as amphora London *BM. Quarterly* 1927-8, 16 pl. 8, jug *GVA Copenhagen* ii pl. 73. 4) offer no clue to the origin of the stylisation of 897.

² The corresponding stage within the workshop of Athens 897 is illustrated by an amphora of ovoid form

in Athens (*BSA* xxxv pl. 26. 1; cf. S. Benton *ib.* p. 106 nos. 14-16): the attraction of the vase-form towards the 'perpendicular' type is manifest on the upper neck and towards the foot; the meander-zone on the belly now sits uneasily among perfunctory bands of bent-line ornament. The jug in the Empedokles Collection *ib.* pl. 25. 3-4, painted under the eye (if not by the hand) of the painter of Athens 897, shows that the horse-and-tripod theme was current in the workshop of 897. Full-dress funeral processions were not the métier of the painters of this workshop, though a file of single-horse chariots appears on one amphora (Athens 184, Wide *JdI* 1899, 193 fig. 56) whose form and decorative system resemble the amphorae with coursing hounds.

³ Young *Hesperia Suppl.* ii 56 figs. 37-38.



a



b

FIG. 6.—KOTYLAI IN VLASTO COLLECTION. (*a*) PROTO-CORINTHIAN. (*b*) ATTIC.

by a narrow band of plain battlement-meander reserved in the clay ground.¹ In scheme and in details of the drawing the belly-zones of the two vases are hardly to be distinguished from one another; while the mourning woman on the left of the neck-panel in Young *loc. cit.* fig. 37 is blood-sister to those on the Cleveland amphora.

A similar decorative sense recurs, in conjunction with the same motives,² on the smaller vases from the pyre of the Agora grave: and there is no particular reason to suppose that they were bought at another stall. The foot-soldier of the tondo, with his great round shield and two spears (*loc. cit.* fig. 39 XII 4), invites comparison with the warrior-zone of the amphora Athens 894 (Plate 22*b*). This amphora has the tight ovoid body, meeting the high flaring neck at a sharp angle, which indicates origin in a workshop accustomed to producing pitchers; and the decoration of the neck follows the same model.³ Nevertheless, its form and decoration admit of an uninterrupted development to the stage of the Cleveland and Agora amphorae. The general system of decoration, strong on the shoulder,⁴ relaxed underneath on the contracting lower wall, and enhanced by plastic snakes, suggests a connection with those two amphorae; the scheme and individual forms of the chariot-zone confirm it (cf. Plates 21 and 22*b*).⁵ The decorative system on the neck and survival of a secondary figure-zone on the lower belly mark the intermediate position of the Cleveland amphora.

The cauldron Athens 810 was painted by a distinguished craftsman who exploited to the full the opportunities which the form offered for representational scenes. Decorative bands have almost disappeared. The vase-form is unusual; R. S. Young remarks its origin in bronzework.⁶ It recurs, however, in two miniature vases from the pyre of the same grave XII in the Agora.⁷ With the similarity of form (high perforated foot, rounded bowl, plastic snake on lip, high-flung ornamental handles) goes a similar decorative sense; the panel below the lip takes pride of place, but there is no balanced Geometric ornament to lay stress on any particular level of the vase-surface. The foot-soldiers recur, as on the tondo of XII 4, isolated in a novel though different scheme. But it is the teams, the filling of the chariot-zone, and above

¹ On the Cleveland amphora the combination appears on the neck.

² *E.g.*, on the jug Young *loc. cit.* XII 8 key-meander below the lip, chequer on upper belly. The decoration has not lapsed into the careless monotony of sub-geometric seen in the stand bowls from the pyre of Young's grave XI (*loc. cit.* fig. 33).

³ *E.g.*, Wide *Jdl* 1899, 205 fig. 71.

⁴ Bands of chequer and plain battlement-meander, as on the Agora amphora.

⁵ The comparison rests principally on the silhouettes of the teams; also on massed lines of reins and

poles, double loops of car rails, pose of drivers, narrow-skulled prognathous human heads (both sexes), drooping helmet-crests, horizontal rows of zigzag in field, lozenge-complex under horses, stocky herons filling gaps in fields.

I regret that I have been unable to see the publication of a hydria, Villa Giulia 1212 (G. Capuano *Rend. Pont. Acc.* xvii, 1941, 155 ff.) mentioned to me by T. J. Dunbabin.

⁶ *Hesperia Suppl.* ii 58.

⁷ *Ib.* fig. 39 XII 2-3.

all the great chariots with their complement of warrior and driver leaning over his horses, that demand the inclusion of the cauldron 810 in the workshop of the amphora 894.

810 hovers on the verge of the Orientalising style; the elegance of form (with doubled plastic snakes), the spiral ornament, the rhythm of the young men racing for the cauldrons and the scheme of the lions and deer-file proclaim the immediate succession from the cauldron 810 to the Analatos hydria and its group (cf. p. 142). The fragments of an open vase found in the same sector as 810 show other contests for the same prizes.¹ Scheme and stylisations are similar, but the hand seems less skilled.²

With the door of the workshop of Athens 894 thus opened wide, it might seem that the majority almost of the Late Geometric amphorae (not to mention other vases of the same phase) claim admittance to it; and it is certainly not easy to draw the line. But this is not surprising: the workshop of 894 was the pioneer of the new style in representational painting, and rival workshops quickly applied themselves to imitating its products. Some of the painters of these workshops can be distinguished in their differing degrees of qualitative, imitative and individualistic capacity. Only by examining the individuality of these other painters can one apprehend how homogeneous in fact is the tradition of the workshop of Athens 894.

(vi) OTHER LATE GEOMETRIC AMPHORA-PAINTERS

Philadelphia MS. 5464 (*Pennsylvania Univ. Mus. Journal* 1917, 16; detail Fig. 7c).
Berlin 3203 (*AA* 1892, 100 no. 4; *Rend. Pont. Acc.* xvii, 1941, 161, fig. 4).

This doublet was remarked by myself.³ It bears at the same time a consistent individuality of its own⁴ and a marked resemblance to Athens 894 (Plate 22*b*) and the Cleveland amphora (Plate 21).⁵ The relationship of this painter to the workshop of Athens 894 cannot at present be determined. The closed vase from Eretria, whose figure-scenes are a little nearer to the style of the colossal Dipylon kraters than 894 even, seems to have more in common with the Philadelphia and Berlin amphorae.⁶ The flowing outlines of the horses of the Philadelphia and Berlin amphorae are almost exactly reproduced on the bowl in London from Thebes.⁷

¹ *AM* 1892, 226, figs. 10 ff.

² Not having seen the original, I am judging from the published drawings and E. Pernice's comment 'recht flüchtig gemalt.' Pernice remarked a relatively close stylistic resemblance to the Analatos hydria and the exact correspondence of the heads of the lions. Cf. *JdI* 1887, pl. 3.

³ *BSA* xxxv 167 f.

⁴ E.g., deeper ornament-bands on shoulder, forms of horses, chariots with side-rail, head and helmet of warriors, saw-toothed ornament in front of warriors'

heads, herons of type Fig. 7c, less dense filling ornament.

⁵ Cf. for instance the neck of the Cleveland amphora.

⁶ *Εφην.* 1903, 13 fig. 7. Cf. especially single horses, small human heads, rimmed shields with white-painted devices (Philadelphia amphora). The illustration of the Eretria vase (as also of the amphora in Eleusis *JdI* 1899, 194 fig. 57) does not permit accurate analysis of the draughtsmanship.

⁷ *JHS* 1899, pl. 8. Cf. the flow of curves from throat to breast and neck to saddle, leading edge of hind legs, and rump.

New York 10. 210. 7 (*Met. Mus. Bull.* 1911, 33 fig. 6).
Benaki Museum (Plate 19: 'Οδηγός p. 100 no. 559).¹

The New York amphora is dumpy, that in the Benaki Museum more perpendicular. The distinctive style of decoration of the former implies an independent workshop. Characteristic of this painter are the over-stylised forms, round central eye and nutcracker features of man and beast, fluttering helmet-plumes, cross-hatched lozenges without border as filling ornament, and the tall crested herons under the horses' bellies. Vase-form, decoration, and in a lesser degree figure-drawing of the Benaki amphora witness the attempt to keep pace with the progressive workshops.

Oxford 1935. 19 (*BSA* xxxv Pl. 38a).

The exaggerated form of the vase recalls the amphora of the Analatos Painter in Paris.² But vase-form and painting are in another manner. The moulding of the lip and band of spiral below suggest the comparison with the proto-Attic hydria Berlin 31312;³ while the decorative effect of band upon band of bent-line ornament on the lower vase-wall recurs likewise on the Early Orientalising hydriai in the Vlasto Collection *BSA* xxxv Pls. 44-45 (cf. p. 141). Comparison of the colts on the neck of the Oxford amphora with those on the handle-zone of the earliest of the Vlasto hydriai (Plate 22a) demonstrates the continuity of tradition.⁴ The workshop which at the close of the Late Geometric era produced Oxford 1935. 19 is the workshop which produced the Mesogeia Painter.⁵

Oxford 1935. 18 (*Ashmolean Mus. Ann. Report* 1935, pl. 1; detail *BSA* xxxv 182 fig. 5).
London (*BM. Quarterly* 1936-7, 56 pls. 18-19a).

This pair has been remarked by E. Kunze and myself.⁶ Vase-form is capacious rather than elegant; bands of ornament are exiguous and consist of narrow hatched triangles, running lozenge and sigma; filling ornament is confined to the occasional swastika and ubiquitous N. The empty space is filled by robust, lumbering, emphatic figures. The lions on the vase in London are enlivened by patches in outline on head and shoulder. These two amphorae are not easy to date. A cognate style is seen in the figure-drawing of a late 'bird and birdseed cup' of singularly rigid profile in Edinburgh (see below). The motive of lion felling deer is alien to the tradition of 894; it recurs on a kantharos in the Vlasto Collection and foreshadows the revolution in Athenian taste in the early seventh century (cf. page 143).

¹ Cf. *BSA* xxxv 168; H. L. Lorimer, Page 76.

² *Mon. Piot* xxxvi pl. 2. J. Audiat *ib.* p. 1 n. 2 disagrees with my attribution to the Analatos Painter.

³ *CVA Berlin* i pl. 40 (*BSA* xxxv pl. 43).

⁴ Cf. also the figures and features of the runners on the neck with the man herding sphinxes on the Berlin hydria.

⁵ This workshop can be traced slightly further back than Oxford 1935. 19, judging by a Late Geometric amphora of which J. D. Beazley kindly showed me photographs.

⁶ *Gött. Gel. Anz.* July 1937, 290 n. 1; *BSA* xxxv 181 n. 2.

This style emerges somewhat tardily into the Orientalising era. The amphora New York 21. 88. 18 bears the characteristics of the workshop which produced the pair in Oxford and London, and with them forms the axis of a loose group of vases whose painters had comparatively little in common with the workshops which were turning out the finer wares at this time.¹

'N' Group:

Edinburgh. Cup L. 363 (T. B. L. Webster *Four Greek Vases in the Manchester Museum, Memoirs and Proc. of the Manchester Lit. and Phil. Soc.* vol. 82, pl. 2a).

Vlasto Collection. Kantharos (*BSA* xxxv 184 fig. 8).

New York. Amphora 21. 88. 18 (*BSA* xxxv pl. 50).

Athens. Amphora-fragments (*BSA* xxxv pls. 48, 49a-b).²

(vii) CHRONOLOGICAL SEQUENCE

The amphorae Athens 894 (Plate 22*b*) and 897 (Plate 20*b*) are direct descendants of a generation of pitcher-painters; chronologically they must stand close to one another, for each plays its part in the ancestry of the Cleveland amphora (Plate 21). A handful of Late Geometric neck-amphorae wear decoration of a typologically earlier style.³ But it is in Athens 894 that one first sees the explanation of the substitution of the amphora for the pitcher as the principal vase in later Late Geometric graves. The broad shoulder and high-pitched belly of the pitcher was not consistent with a deep figure-zone; the neck-amphora with its narrower neck offered a more level field below the shoulder, and so it returned to favour as the vehicle of the new representational movement. The strength of that movement is measured by the rapidity with which the ovoid body was modified to the more suitable perpendicular form.

The acme of the Late Geometric pitchers preceded Athens 894. P. Kahane has remarked two stages in the development of this vase-type (*AJA* 1940, 482): the earlier is represented by Dipylon grave XIII, the later by grave I at Spata and an unofficial grave-group (*loc. cit.* pl. 26. 3; pls. 27. 2, 28. 2; pls. 27. 1, 28. 1), followed by the workshop of the Lion Painter.⁴ In

¹ Cf. *BSA* xxxv 180 ff.

² Examples cited here have been confined to vases closely connected with the pair of amphorae in Oxford and London. The Vlasto kantharos bears on the side not illustrated an oblong patch reserved in outline on the lion's neck.

³ E.g., Athens 769 (*CVA Athens* i pl. 7. 4); Kerameikos (*AM* 1926, Beil. 7. 4; *AA* 1935, 267 fig. 4); Boston (Fairbanks 261 pl. 20; for the band of colts cf. pitcher in Hamburg *AA* 1928, 289 fig. 16 = E. von Mercklin *Führer* ii pl. 3); Agora fragment (Young *Hesperia Suppl.* ii 113 fig. 80 B 18); and especially the London neck-amphora (*BM. Quarterly* 1927-8, 16 pl. 8)

whose form and decoration seem based on the tradition not of pitchers but of the Prothesis amphorae (as Pfuhl *MuZ* iii pl. 1 = *CVA Athens* i pl. 8), with its slighter counterpart Copenhagen, Ny Carlsberg Inv. 2680 (F. Poulsen *Vases grecs récemment acquis* figs. 2-3). The Kerameikos amphora is not only akin in its decoration to the pitchers from the Dipylon, but was found together with a gold band (*AM* 1926, Beil. 7. 3) of identical stamp with that from the Dipylon pitcher-grave V (*AM* 1893, 109 fig. 7).

⁴ *AJA* 1940, 482. Figs. 6*a* and 7*a* here are the proto-Corinthian kotylai of Kahane's Late Geometric group II 4.

Dipylon grave XIII the influence of proto-Corinthian vase-painting is for the first time manifest in the files of birds which derive from the proto-Corinthian herons.¹ These Attic files of birds (Beazley's 'bird and birdseed') are most commonly found in bands of decoration on cups of the type of Fig. 5;² cups of this shape were contemporary with the Late Geometric pitchers, for it is in pitcher-graves that they have been found.³ In graves of the stage of



FIG. 7.—PAINTED HERONS ON PROTO-CORINTHIAN (a, b, d) AND ATTIC (c) VASES.

(a) VLASTO COLLECTION. (b, d) SYRACUSE. (c) PHILADELPHIA M.S. 5464.

Spata I the 'bird and birdseed cup' was being supplanted by the wide proto-Corinthian kotyle and Attic imitations of the same shape.⁴ The form of the 'bird and birdseed cup' was soon after assimilated with the narrower skyphos

¹ Cf. the pitcher-lid Wide *JdI* 1899, 207 fig. 74a, from Dipylon grave XIII.

² Manchester Museum. T. B. L. Webster *Four Greek Vases, Memoirs and Proc. of the Manchester Lit. and Phil. Soc.* vol. 82, pl. 1. To the list of Attic cups of this type (*ib.* p. 10) add: Agora fragments (Young *Hesperia Suppl.* ii fig. 35, 13, fig. 72, 1, fig. 108 C 40); Athens, from Spata (*Δελτ.* vi 135 figs. 8 and 9); Paris, Louvre (unpublished: grazing horses); Vlasto Collection (E. A. Lane *BSA* xxxiv 104: the hydria there mentioned is *BSA* xxxv pl. 45, but M. P. Vlasto reported the dealer doubtful whether the cup came from the same grave); Würzburg (Langlotz, 58 pl. 4). From B. Schweitzer *AM* 1918, 143 add Bonn V.I. 1632 and Dresden Z.V. 1476. Webster's no. 8 is in the British School at Athens, also another example from Kyno-

sarges. With his no. 11 from Anavysos were found three others (one E. Kunze *Kret. Bronzereliefs* pl. 53e); his no. 14 is now *JdI* 1938, 101 fig. 6. T. J. Dunbabin adds a replica of the cup Fig. 5, in his possession in the British School at Athens; from Kunze *op. cit.* 76 n. 6 Munich (*AA* 1913, 22 no. 2), Kiel, Halle, Eleusis 308; from Young *Hesperia Suppl.* ii 152 five examples in the Empedokles Collection in Athens.

³ Dipylon grave VII (cup *AM* 1893, 113 fig. 10; pitcher Wide *JdI* 1899, 207 fig. 75); Spata grave III (*Δελτ.* vi 135 ff. figs. 6-10); Agora grave XXV (Young *Hesperia Suppl.* ii 102 fig. 72).

⁴ Proto-Corinthian: *AJA* 1940, pl. 28, 1 (cf. K. F. Johansen *Vases Sicyoniens* pl. 10, 1, from Anavysos). Attic: *AJA* 1940, pl. 28, 2 (cf. Young *Hesperia Suppl.* ii fig. 91 B 85, fig. 109 C 30).

with upright rim,¹ of which it was in fact a short-lived refinement. At the same time the bird-files lost their emphatic position in the decoration of Late Geometric vases, and the form of the birds themselves underwent a stylisation which led to a simple bent-line pattern.² A corresponding sequence is to be observed on proto-Corinthian kotylai and cups, leading from the full-bodied type of the Anavysos kotyle³ through the two kotylai (Figs. 7*a* and 6*a*) found with the Vlasto kotyle from the Lion Painter's workshop (Fig. 4*a*) to the files of the earliest kotyle-fragments from the Athenaion at Syracuse (Fig. 7*d*).⁴ The files on the Syracuse kotyle-fragments are clearly parallel to the earliest Attic Orientalising (cf. Fig. 6*b*); the fragment of a cup from the same site (Fig. 7*b*), of the type Johansen, pl. 10. 2-3, shows a typologically rather earlier stage in which the birds are still intended to portray herons⁵ (cf. the Vlasto kotyle Fig. 7*a*).

The acme of the pitcher-painting workshops falls in the third quarter of the eighth century, determined by the wide convex-walled kotylai which distinctly precede the earliest known proto-Corinthian from Syracuse. The Lion Painter follows immediately after the acme, on the evidence of the two proto-Corinthian kotylai (Figs. 6*a* and 7*a*), whose form, though still fully convex, is appreciably narrower. His own lion-kotyle (Fig. 4*a*), when set beside the proto-Corinthian ones from the same grave, smacks of archaism; he has retained the old-fashioned wide rim, but transformed it by closing the lip and hollowing the lower wall, so that it almost appears a new type of cup.⁶ Archaism and affectation in fact stamp his pitchers also—vase-form, decoration and figure-panels alike. He stands by himself, in the phase of his career in which we recognise him, the last pitcher-painter to paint expensive pitchers and find customers to buy them.⁷ The amphora-painters were by this time capturing the market. From Athens 894 (Plate 22*b*) the new style developed in the last quarter of the eighth century, was built up into the tradition that is seen in the Cleveland (Plate 21) and Agora amphorae and the cauldron Athens 810, and passed into the earliest Orientalising amphorae and hydriai of the workshops of the Analatos Painter and the Mesogeia Painter. The

¹ Cf. Young *Hesperia Suppl.* ii 151 fig. 106.

² Sequence: Late Geometric pitchers (*AJA* 1940, pl. 27. 1-2); Late Geometric amphorae (Berlin 3203 *AA* 1892, 100; Philadelphia MS. 5464 *Pennsylvania Univ. Mus. Journal* 1917, 16—the former on the lowest neck-band, the latter in groups in the chariot-zone cf. Fig. 7*c*); earliest Orientalising (*BSA* xxxv pl. 38*b* below belly-zone; *ib.* pl. 42*a*; kotylai, here Fig. 6*b*, Young *Hesperia Suppl.* ii 147 fig. 103 C 27).

³ Johansen, pl. 10. 1.

⁴ *Mon. Ant.* xxv 539 fig. 122.

⁵ *Mon. Ant.* xxv 554 fig. 140.

⁶ Cf. P. Kahane *AJA* 1940, 479. The Manchester example Fig. 4*b* is the link with the series of kotylai.

T. J. Dunbabin remarks that the lion-kotyle appears to be parallel in shape to the earliest Corinthian kotylai; cf. H. Payne *Perachora* i 56, and cups *ibid.* pl. 121. 16 and 18.

⁷ Some pitcher-painters of the paracme attempted to hold their custom by acceding to the demand for representational zones (cf. *CVA Providence* pl. 8. 2; London 1912. 5-22. 1, *AM* 1928, 36 Beil. 8 no. 10). Others gave up the unequal competition with the amphora-painters (cf. pitchers decorated with monotonous bent-line ornament, e.g., *AA* 1938, 439 figs. 23-24). The brighter craftsmen must of course have turned to the production of amphorae.

acme of the earliest Orientalising workshops in Athens is dated by the narrow straight-walled kotylai around the turn of the century.¹

J. M. COOK

Late Geometric Pitchers.

- Agora, grave XXV (Young *Hesperia Suppl.* ii 102).
 Athens 174 (Wide *JdI* 1899, 208 fig. 77).
 Athens 189 (Wide *ib.* fig. 76).
 Athens 226 (Wide *ib.* fig. 71; *CVA Athens* i pl. 7. 1).
 Athens 706 (Wide *ib.* fig. 73).
 Athens 771 (Dipylon grave XIII: Wide *ib.* figs. 74, 74a).
 Athens 782 (Dipylon grave VII: Wide *ib.* figs. 75, 75a).
 Athens 858 (Wide *ib.* fig. 72).
 Athens, from Spata (Grave I, *AJA* 1940, pl. 27. 2; graves III–IV, *Δελτ.* vi 135 figs. 6 and 11).
 Athens, from Anavysos (Πρακτ. 1911, 122 nos. 20, 21 and one unpublished).
 Athens (*Society of Friends of the Nat. Arch. Museum* 1934–5, 6 fig. 3).
 Athens, British School of Archaeology (from Kynosarges *BSA* xii 81 figs. 1, 2b): one unpublished.
 Athens, Empedokles Collection (cf. R. S. Young *Hesperia Suppl.* ii 200 n. 3).
 Berlin F. 48 (cf. Kunze *Gött. Gel. Anz.* 1937, 290).
 Boston (Fairbanks 266, pl. 21: *id.* 267, pl. 22).
 Bremen E 471 (H. Schaal *Griech. Vasen u. figürliche Tonplastik in Bremen (Abhandlungen u. Vorträge der Bremer Wissenschaftlichen Gesellschaft* Sept. 1933) pl. 1).
 Brussels (*AM* 1918, pl. 2. 3; *CVA Musées Royaux* ii pl. 54. 2).
 Brussels (*CVA Musées Royaux* ii pl. 54. 3).
 Copenhagen, Ny Carlsberg Inv. 2674 (F. Poulsen *Vases grecs récemment acquis* fig. 1).
 Copenhagen, Ny Carlsberg Inv. 2784 (*From the Collections of the Ny Carlsberg Glyptothek* ii 114 fig. 1).
 Eleusis (Έφιμ. 1898, pl. 3. 6: *ib.* pl. 4. 1).
 Germany, private possession (K. A. Neugebauer *Antiken in deutschem Privatbesitz* no. 140, pl. 58).
 Hague, Bruikleen Gemeentemuseum (C. W. L. Scheurleer *Grieksche Ceramiek* pl. 2. 6).

Late Geometric Neck-amphorae (excluding precursors of 'balloon-amphorae' cf. Young Hesperia Suppl. ii 210).

- Agora (Young *Hesperia Suppl.* ii 26 IV 2: 47 XI 1–2: 55 XII 1: 74 XV 1: 113 B 18: 127 B 59).
 Amsterdam 6249 (*Allard Pierson Museum, Algemeene Gids*, 1937, Pl. 48).
 Athens 184 (Wide *JdI* 1899, 193 fig. 56).
 Athens 769 (Wide *ib.* fig. 55; *CVA Athens* i pl. 7. 4).
 Athens 894 (Plate 22b; Wide *ib.* fig. 61).
 Athens 897 (Plate 20b; Wide *JdI* 1900, 53 fig. 114).
 Athens 898 (Collignon-Couve, pl. 11 no. 210).
 Athens, from Spata (*Δελτ.* vi 134 fig. 4).
 Athens, from Anavysos (Πρακτ. 1911, 123 no. 22).
 Athens (*BSA* xxxv pl. 26. 1).
 Athens, Empedokles Collection (*BSA* xxxv pl. 25. 2).
 Athens, Kerameikos (*AM* 1926, Beil. 7. 4: *AA* 1935, 267 fig. 4).
 Benaki Museum (Plate 19; 'Οδηγὸς Μουσείου Μπενάκη 100 no. 559; cf. *BSA* xxxv 168).
 Berlin 3203 (*AA* 1892, 100 no. 4; *Rend. Pont. Acc.* xvii, 1941, 161, fig. 4).
 Berlin F. 3901 (K. A. Neugebauer *Führer* ii pl. 3).
 Berlin 31005 (K. A. Neugebauer *Führer* ii p. 7).
 Boston (Fairbanks 261, pl. 20; *Winter Kib* 110, 15).
 Boston (Fairbanks 262, pl. 21).
 Cleveland 1927. 27.6 (Plate 21; *Bull. Cleveland Mus.* 1927, 99).
 Copenhagen (*CVA Copenhagen* ii pl. 74. 3).
 Copenhagen, Ny Carlsberg Inv. 2680 (F. Poulsen *Vases grecs récemment acquis* figs. 2–3).
 Eleusis (Wide *JdI* 1899, 194 fig. 57).
 Hague (*CVA Musée Scheurleer* i pl. 23. 1).
 Leyden (Brants *Description of the Class. Collection* ii pl. 7 no. 52).
 London (*BM. Quarterly* 1927–8, 16 pl. 8).

¹ Sequence: proto-Attic kotyle Eleusis 882 (*BSA* xxxv 183 fig. 6); Attic kotyle in Vlasto Collection (from grave containing hydria *BSA* xxxv pls. 45, 46a); Attic kotyle Fig. 6b (from grave containing hydria

BSA xxxv pl. 46b–c); Attic kotyle with bird-file, perhaps from workshop of the Analatos Painter (Young *Hesperia Suppl.* ii 147 fig. 103 C 27).

- Hamburg (*AA* 1928, 289 fig. 16=E. von Mercklin *Führer* ii pl. 3).
 Karlsruhe (*AM* 1918, 103 fig. 24).
 Leyden (Brants *Description of the Class. Collection* ii nos. 48-50, pls. 7 and 9).
 London 1905. 10-28. 1.
 London 1912. 5-22. 1 (*AA* 1913, 464 VIII; *AM* 1928, 36 Beil. 8 no. 10).
 London 1913. 11-13. 1 (detail *JHS* 1932, 273 fig. 4).
 London (E. H. Dohan *Italic Tomb-Groups* pl. 28).
 Munich (*AA* 1938, 439 fig. 23: *ib.* fig. 24).
 Munich NJ 6404 (E. Buschor *Griechische Vasen* (1940) 15 fig. 14).
 New York (*Metr. Mus. Bull.* 1911, 35 fig. 10).
 Paris, Louvre A 511 (*AM* 1918, 91 fig. 18 = E. Pottier *Vases du Louvre* i pl. 20. 1).
 Rhode Island (*CVA Providence* i pl. 8. 2).
 Stuttgart (cf. Kunze *Gött. Gel. Anz.* 1937, 290).
 Toronto 117 (Robinson, Harcum and Iliffe, pl. 8).
 Tübingen B 7 (Watzinger, pl. 1).
 Uncertain location (*AJA* 1940, pl. 27. 1: *ib.* pl. 27. 3).
 Vienna (Masner, 30 pl. 1).
 London (*BM. Quarterly* 1936-7, 56 pl. 18).
 London, Baring Collection (*JdI* 1943, 15 fig. 8).
 Mannheim.
 Munich St. Inv. 176 (B. Schweitzer *Herakles* fig. 25).
 New York 10. 210. 7 (*Metr. Mus. Bull.* 1911, 33 fig. 6).
 Oxford 1916. 55 (*AM* 1928, 36 Beil. 8 no. 13).
 Oxford 1935. 18 (*Ashmolean Mus. Ann. Report* 1935, pl. 1; detail *BSA* xxxv 182 fig. 5).
 Oxford 1935. 19 (*BSA* xxxv pl. 38a).
 Oxford 1895. 76.
 Paris, Louvre CA 1789.
 Philadelphia MS. 5464 (*Pennsylvania Univ. Mus. Journal* 1917, 16).
 Philadelphia (cf. *BSA* xxxv 167 n. 3).
 Toronto (Robinson, Harcum and Iliffe, 630 pl. 101; *Rend. Pont. Acc.* xvii, 1941, 163, fig. 5).
 Uncertain location (*Sale Catalogue, Collection Pozzi* (1919) ii no. 434).
 Vlasto Collection, fragments (cf. *BSA* xxxv 167 f.).
 Würzburg (Langlotz, 52 pl. 3).

HAGIOS NIKOLAOS NEAR ASTAKOS IN AKARNANIA

(PLATES 23-30)

Abbreviations:

DS: Ch. Tsountas, Αἱ Προϊστορικαὶ Ἀκροπόλεις Δημηνίου καὶ Σέσκλου.

Gonia: C. W. Blegen, *Gonia* (*Metr. Mus. Stud.* iii).

Orchomenos: E. Kunze, *Orchomenos* ii.

PMac: W. A. Heurtley, *Prehistoric Macedonia*.

PT: A. J. B. Wace and M. S. Thompson, *Prehistoric Thessaly*.

Prosymna: C. W. Blegen, *Prosymna*.

Weinberg: S. S. Weinberg, *Remains from Prehistoric Corinth* (*Hesperia* vi, 487 ff.).

SAILING into Astakos Bay,¹ which the Navy calls Dragomesti Bay, along the S.E. coast of the Krithote Peninsula, one passes the little Church of H. Nikolaos, and then a yawning black cave-mouth in the precipice of limestone 500 ft. above (Pl. 23*a*), about one hour's walk from Astakos. The lowest entrance is visible above a carob tree, and nothing was discovered in the lowest cave, tested at M (see section, Fig. 1*a*). We climbed up a ladder to a pleasant platform in the open where there was a terracotta or so. Another ladder, with a sheer drop below and a nice fig-tree alongside (Pl. 23*b*), led to the real entrance. I went first; the ladder broke, but I clutched the fig-tree. The foreman had hysterics, which was our only casualty, except one malingerer on the last day, who attributed his (alleged) fever to the miasma of the Neolithic dead.

There was a certain amount of dusty, disturbed earth above the fig-tree (see plan Fig. 1*b*):² we did not remove it all, but we tested it by pits K, L, O. There were terracottas of little merit, and poor sherds from the sixth to the third centuries B.C., with a few Neolithic sherds. Z in the passage-way leading up was more interesting; more Neolithic pottery and a few Hellenistic vases in the lime. Y was a trench about 0.50 m. deep, with a lot of red-ground painted Neolithic, but still pretty disturbed. The deposit in X appears to be pure below 0.50 m., perhaps below 0.30 m. At 0.30 m. partially articulated human bones were found in a lime-hardened deposit. I observed a pelvis in contact with the sacrum, and a piece of skull. At the foot were two skulls

¹ See my map *BSA* xxxii, pl. 38.

² I give no plan of the 'ground floor' or of the 'first floor.' I was single-handed, and the section

shows that it was a difficult site to survey. Parts of the section have been sketched by eye, and liberties have been taken with direction.



FIG. 1 (a).—SECTION OF CAVE AND APPROACHES.

1 (b). PLAN OF INTERIOR.

surrounded by Neolithic sherds. The juxtaposition of two skulls,¹ or even of two skeletons, in a cave cannot be regarded as evidence for Neolithic burial customs.

The technique of Neolithic painted pottery is so fascinating that excavators are tempted to concentrate upon it, particularly upon colour, which must be variable, ephemeral and local. Moreover, small sherds at the beginning of a new exploration leave the more permanent features of shape, and scheme of decoration, rather elusive. Still, extreme elaboration in a classification by ephemerals ends with every sherd in a different category (Mylonas at Olynthos actually achieved this goal of a one-herd group). Wace indeed notes that the inside and outside of a vase may fall in different categories;² moreover, if the base and the upper part of a vase³ were found separately, the base might be classed as A, early, the upper part might have to be classed as B, late. Tsountas, not Wace, invented the classification.

Astakos painted pottery has a strong likeness to Thessalian pottery, and on Tsountas' colour scheme most of it would be classed as three-colour ware, therefore Thessalian B, but it is also closely related to Thessalian A, which Wace believed alien to Thessalian B. I must therefore try to isolate the fundamental differences between A and B, for a change in technical details is only to be expected on the other side of the backbone of Greece. I take this analysis entirely from other people's books, chiefly from *Prehistoric Thessaly*. I have not been able to compare drawings with originals.

THESSALIAN A.

I. Patterns.

1. Swathes, zigzags, or lines, like close embroidery over the whole vase.
2. Geometric; bands of thin lines edged with thick lines or with teeth; cross-hatched and solid squares, diamonds, and triangles; groups of wavy lines; stepped triangles and squares; dots. Patterns generally accommodated to shape.
3. Degenerating No. 2 patterns.

II. Shapes (Figs. 2, 3).⁴

- A 1. Semi-circular bowls.
- A 2. Wide bowls, flat-bottomed or on a low foot.
- A 2a. Straight-sided pyxis.
- A 3. Round bowls with a low everted neck.

¹ See p. 183 below.

² *PT*, 14 and 16.

³ E.g., *PT*, Pl. III, 1.

⁴ References for Figs. 2-3:

A 1. *PT*, 198, fig. 140a.

A 2. *PT*, 92, fig. 44b; on a low foot *PMac*, pl. 1. 6.

A 2a. *DS*, 179, fig. 846 (compare pl. 15. 2).

A 3. *PT*, 175, fig. 119a.

A 3a. *Loc. cit.*, fig. 119b.

A 4. Wace and Thompson, *LAAA*, 1909, pl. XXXIII. 3.

A 5. *PT*, 92, fig. 44d. See also *ibid.*, 97, fig. 49b.

A 6. See *PT*, 176, fig. 120.

A 7. *PT*, 198, fig. 140e. See others on a low foot on same page.

A 7a. *PT*, 89, fig. 42a.

A 8. Hansen, *Early Civilisation in Thessaly*, 31, fig. 11, 7 = *PT*, 89, fig. 42e. See also *PT*, 97, fig. 49a.

A 9. See *PT*, 96, fig. 48k.

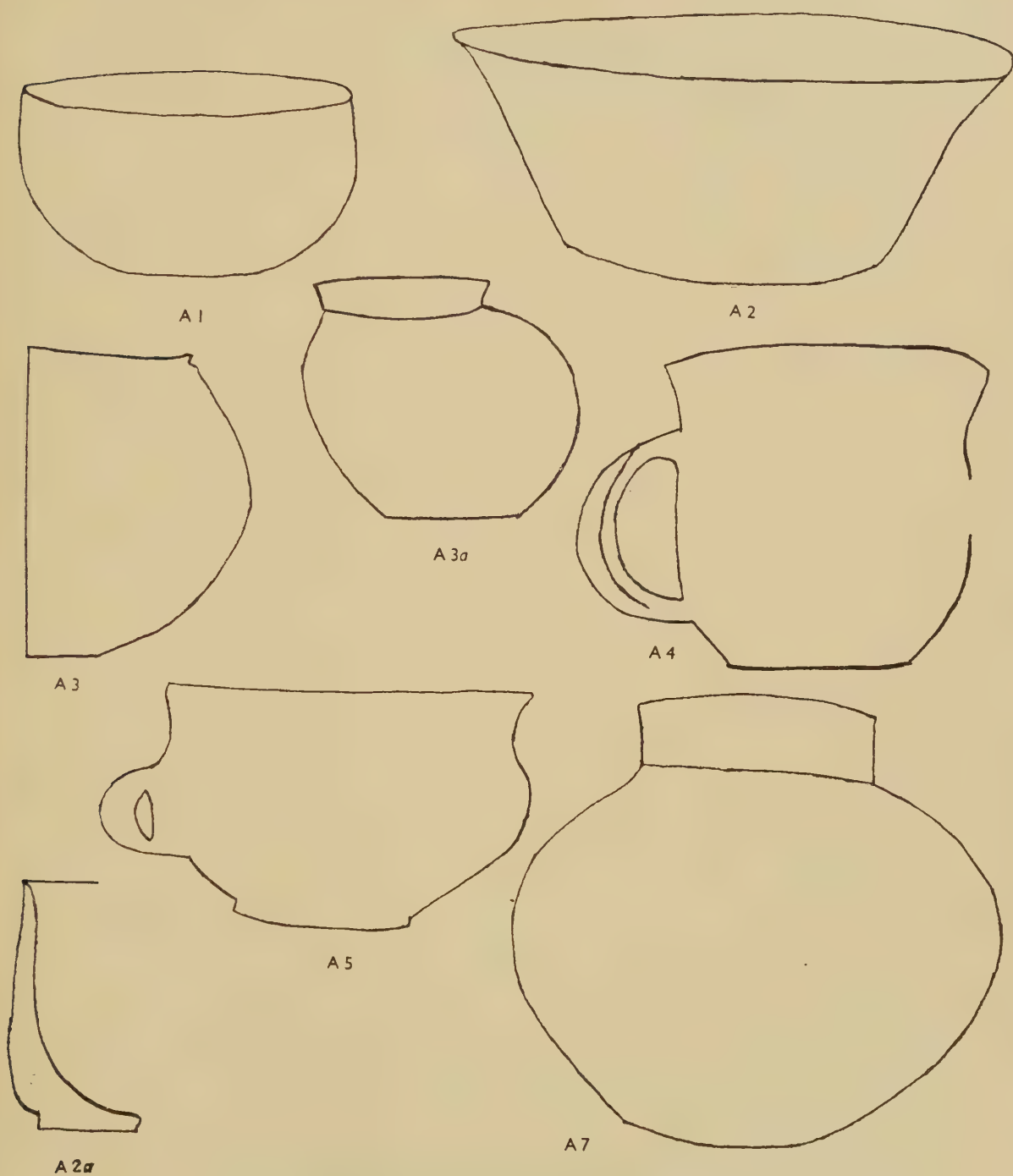


FIG. 2.—THESSALIAN A SHAPES: PAINTED POTTERY.

- A 3a. Similar but asymmetrical.
- A 4. Bell-shaped mugs with wide-flung ribbon handles.
- A 5. Cups and mugs with ribbon or tubular handles.
- A 6. Plates on low feet (Compare Fig. 4, A A 6).
- A 7. Biconical urns with cylindrical necks and round bottoms.
- A 7a. Similar on a low foot, with or without handles.
- A 8. Jars and amphorae with flaring rims.
- A 9. Keeled bowls with long tubular handles (see Fig. 4, A A 9).

Monochrome A shapes (Fig. 4).¹

A A 6. Plates on low feet.

A A 9. Keeled bowls.

A A 10. Dipper.

A A 11 and A A 11a. Wide-bottomed jugs.

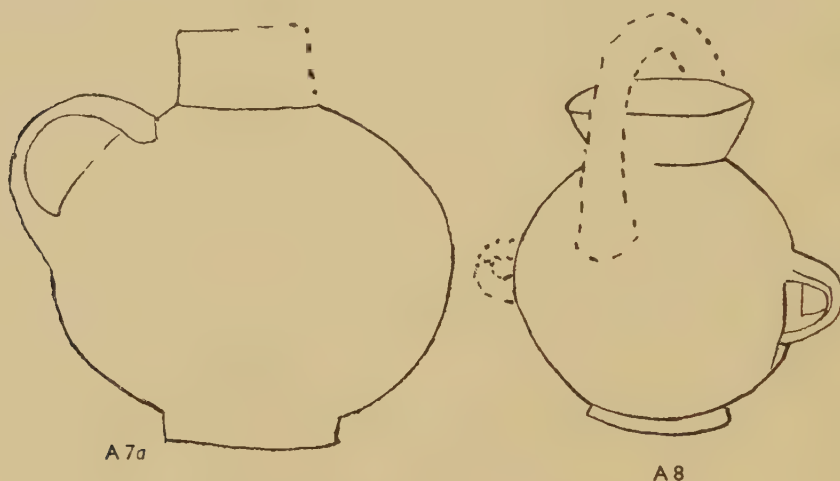


FIG. 3.—THESSALIAN A SHAPES: PAINTED POTTERY.

THESSALIAN B.

I. Patterns.

1. Patterns sometimes accommodated to shape, sometimes not.
2. New motives are spirals and hatching, which are used with all the old motives.
3. Degenerating geometric patterns, detached squiggles and lines.

II. Shapes (Figs. 5, 6).²

- B 1 and B 1a. Deep bowls, with pierced lugs, or an organic handle (Dimini bowls).
- B 2. Bowls like A 2, but deeper and straighter.

¹ References for Fig. 4:

A A 6. *DS*, 165, fig. 78.

The rest *PT*, 87, fig. 40.

Miss Hansen's fig. 9 (*loc. cit.*), lumps A and B monochrome shapes together, which is somewhat confusing.

² References for Figs. 5-6:

B 1 and 1a *Prosymna* ii, 4, fig. 26, no. 197; p. 155, fig. 629 (for lugs see *DS*, pl. 20 and p. 197, fig. 106). I omit bowls with wavy rims.

B 2. *PT*, 32, fig. 12.

B 2a. *PT*, 104, fig. 54b.

B 3. *DS*, pl. 21, 3.

B 3a. *Ibid.* pl. 11.

B 6. *PT*, 109, fig. 59g. Vases on feet omitted.

B 7. *PT*, pl. III. 1.

B 7a. *DS*, 215, fig. 118.

B 7b. *PT*, 32, fig. 11a.

B 7c. *Orchomenos* ii, pl. XXVI. 4a.

B 7d. From a photograph, kindly shown me by Miss Pascoe: a painted B jug neck from Drachmani.

B 8. *PT*, 102, fig. 52.

B 9. *Orchomenos* ii, pl. XXVI. 3.

B 10. *PT*, pl. II. 4.

B 11. *PT*, 107, fig. 57f.

B 12. *DS*, 216, fig. 119.

B 13. *Orchomenos* ii, pl. XXVI. 4b.

B 2a. Tumblers.

B 3. Round bowls, slightly everted necks, vertically pierced lugs. (I have not seen this vase.)

B 3a. Similar, but with short conical necks, and organic handles.

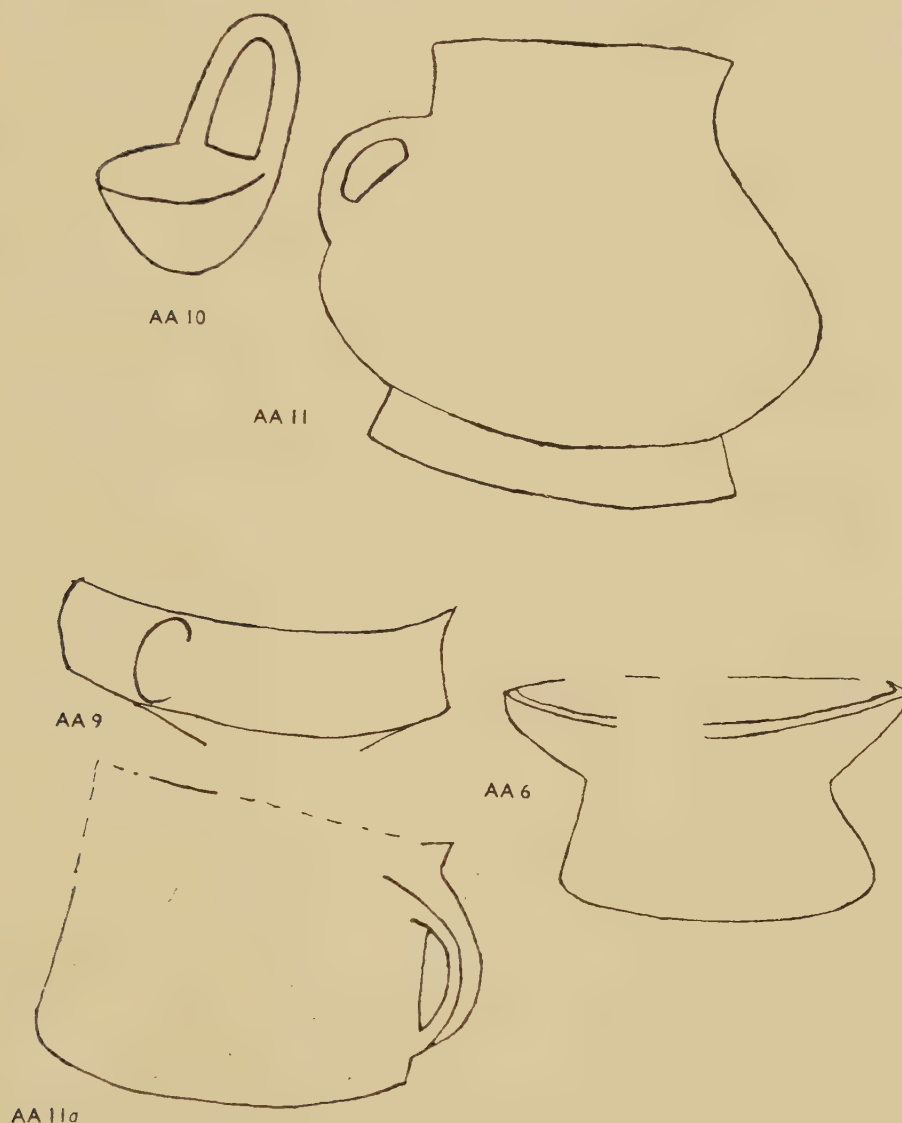


FIG. 4.—THESSALIAN A SHAPES: MONOCHROME POTTERY.

B 6. Fruit-stands.

B 7. Biconical urns, with cylindrical necks.

B 7a and B 7b. Amphorae, with conical necks and organic handles.

B 7c. The handles have moved higher.

M

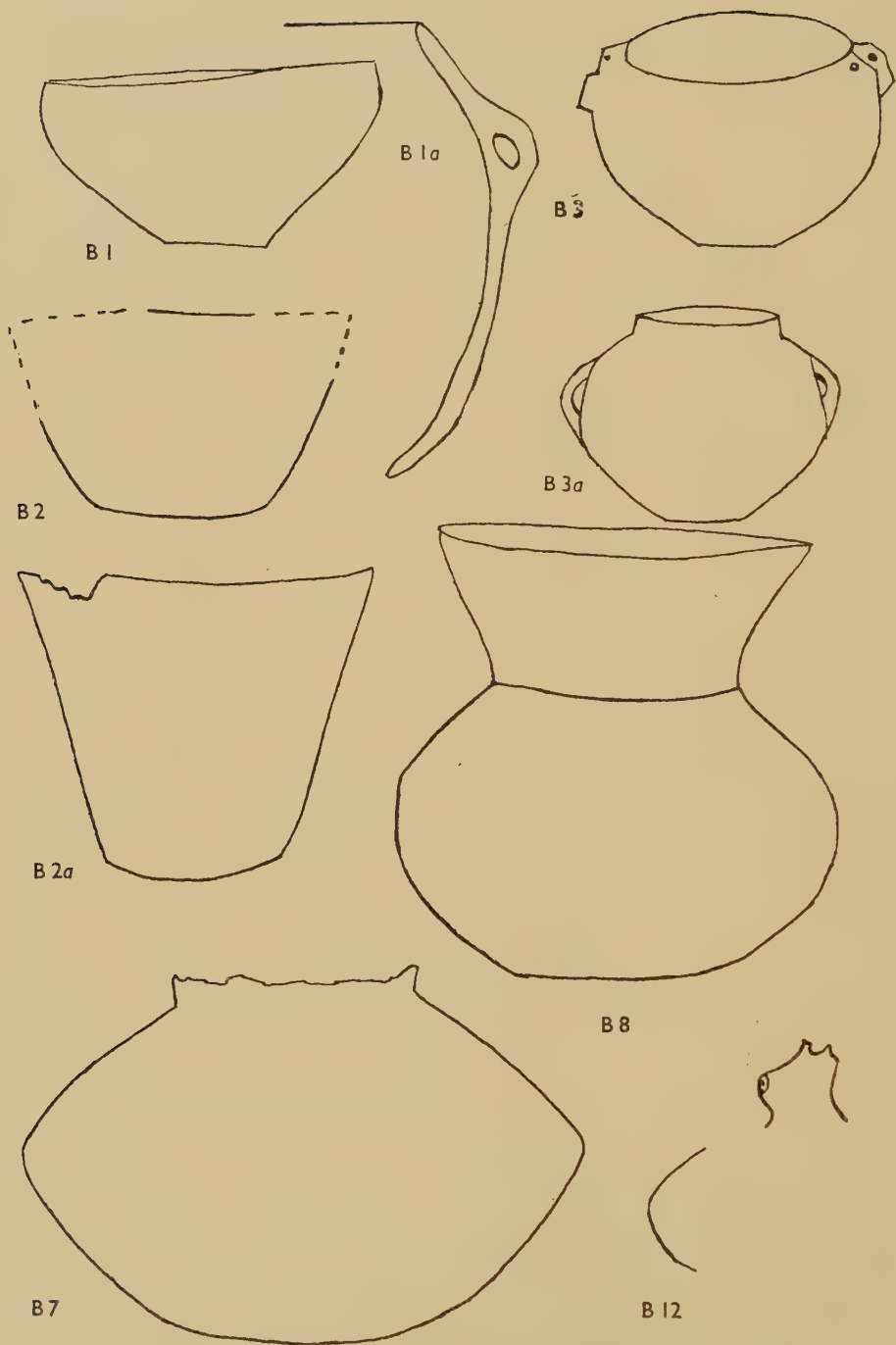


FIG. 5.—THESSALIAN B SHAPES: PAINTED POTTERY.

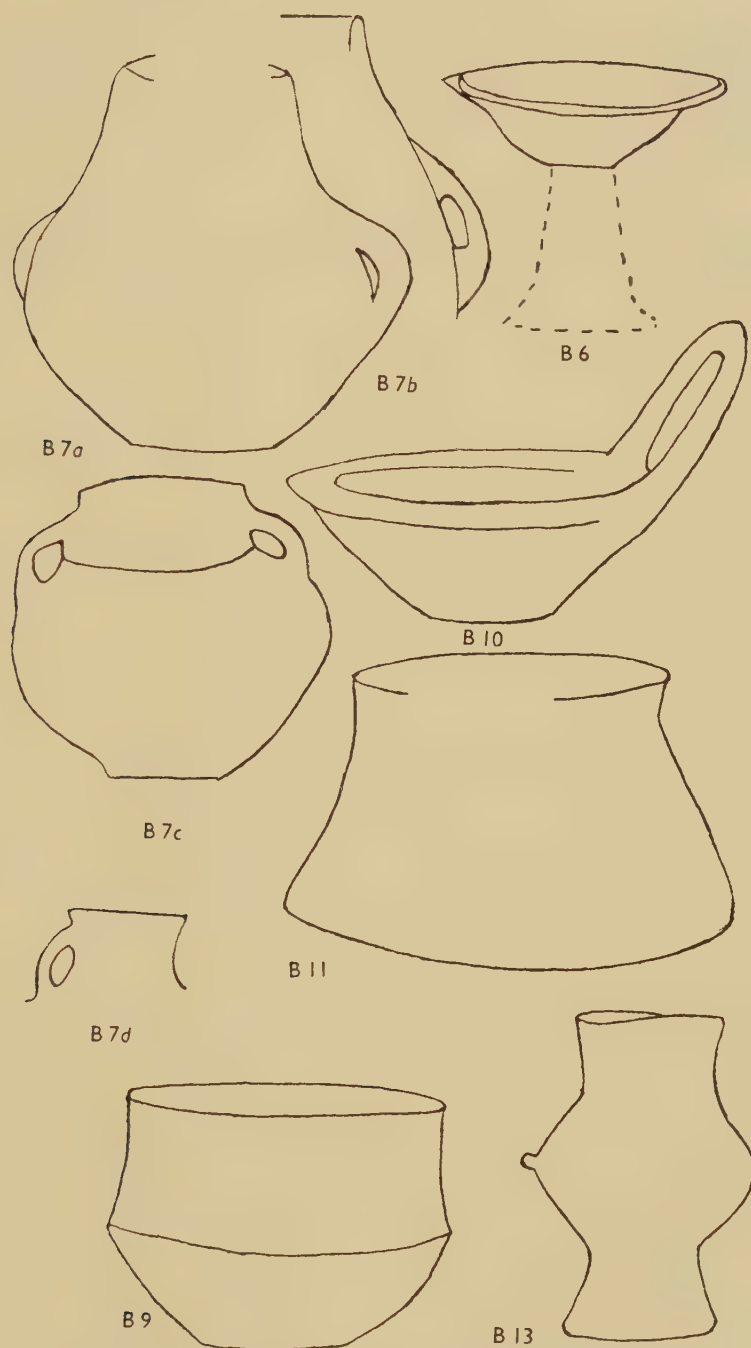


FIG. 6.—THESSALIAN B SHAPES: PAINTED POTTERY.

B 7*d*. A jug neck, the handle is at the top.

B 8. Jar with a flaring rim.

B 9. Keeled bowl.

B 10. Dipper.

B 11. Wide-bottomed jar.

B 12. Lid.

B 13. Three-storied vase.

Three monochrome B shapes are given for comparison (Fig. 7).¹

This has been a long, dull list, but it does make the sum easier. As regards patterns, it is clear at a glance that A has 'embroidery' and teeth edging,

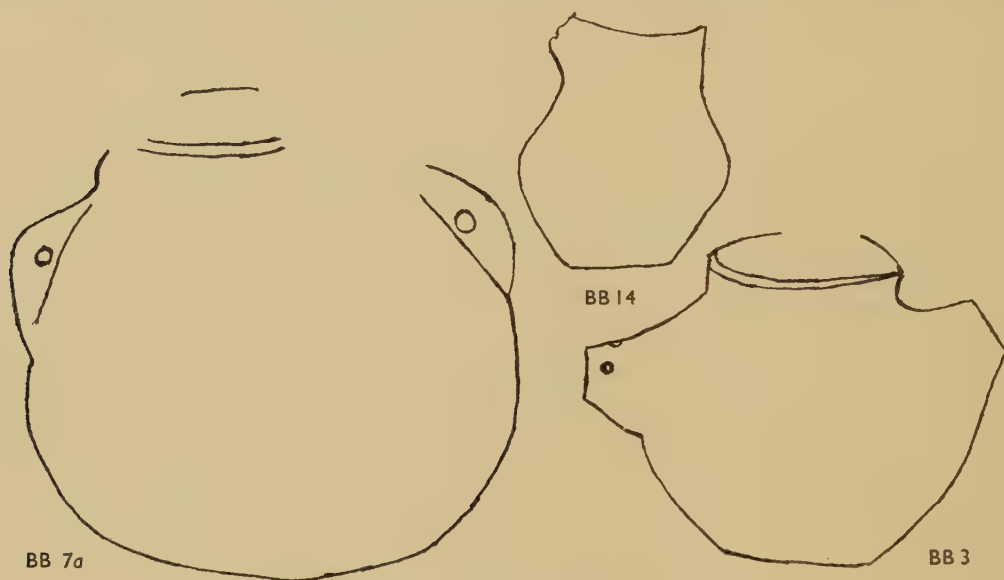


FIG. 7.—THESSALIAN B SHAPES: MONOCHROME POTTERY.

that B has spirals and hatching, but that there is a large common denominator of geometric patterns. Even these reservations are less absolute than appears at first sight. The embroidery effect of Lianokladi pottery² appears in Dimini ware,³ brightened up and with clearer definition, and the freak vase (A 3*a*), has a typical Dimini edging pattern.⁴ Teeth edging is found on three-colour ware,⁵ and on the inside along the rims of both plates⁶ and fruit stands,⁷ and on other B ware vases. Moreover, the bowl (B 3) quoted by Wace as a typical B shape, has a typical A pattern. The irreducible minimum is in fact the spiral.

¹ References to Fig. 7:

BB 7*a* and 3. *Orchomenos* ii, pl. XIV. 5 and 6.

BB 14. *PT*, 140 fig. 86*e*.

² *PT*, 175.

³ *PT*, pl. I and p. 45, fig. 21*e*.

⁴ Compare the pattern of the vase B 1 (see above for reference), and the pattern of *DS*, pl. 21. 4.

⁵ *DS*, pl. 6. 3.

⁶ *PT*, 176, fig. 120.

⁷ *PT*, 103 (four examples).

Now that A and B shapes are confronted, it will be clear that the connection between them is closer than had been supposed, and the figures have been numbered to suggest the development of shape from A to B. I have used Blegen's photograph of a bowl from the Argolid (B 1), because it shows clearly that these bowls are round and not angular; thus they are not so far from A 1. The same tendency to narrow the base and increase the height appears in the change from A 2 to B 2a: B 2 appears to be a transition stage.¹

The B shapes on which the new patterns occur are B 1, 3, 3a, 6, 7a, 7b. The new shape features connected with the new patterns are conical necks, 'organic' handles, a higher foot, and pierced lugs. The organic handle is not entirely unlike that of A 7d or AA 11: sections of it are rather scanty, but a modification² in that direction seems to have taken place in Thessalian A. Apart from the novelties just mentioned, B shapes 12, 13, above seem to have no A predecessors.

Childe tells me that our Soviet allies prefer to regard new pottery styles as the fruits of peace, rather than as the result of foreign conquest. We know this to be true of historic Greece, why should we assume the opposite for pre-historic Greece? The Danube region, no doubt rightly, has always been supposed to be responsible for Dimini spirals, but none of the other new features for which we are searching are to be found there (except perhaps pierced lugs), and all we need to transport spirals is one traveller carrying one vase. Look what happens to Heurtley's conquering Danubians marching to Dimini carrying their pots via Servia. At Servia they forgot their painted spirals altogether, and only managed late, degenerate, non-Dimini, small vases. At Rakhmani they remembered their spirals and painted better; on to Larissa still improving, to arrive at Dimini in a blaze of glorious, jazz patterns.

I prefer to think that my one Danubian had occasion to offer a bribe to a Dimini potter, just when a consignment of Early Bronze Age pottery sailed in to Volo Bay from Syra, which is not too far away, and still the mart of the Cyclades (Thessaly was rather behind the times then, it still is).

Cycladic shapes (Fig. 8).³

- C 1. Dimini bowl.
- C 2a. Pyxis with lid.
- C 2b. Pyxis.

¹ Compare *AM* lvii, Beil. XXIII. 2 in A fabric.

² See p. 176 below, note 3.

³ References for Fig. 8:

C 1. 'Ep. 'ApX., 1898, pl. 9. 17, from a house in Amorgos.

C 2a. 'Ep. 'ApX., 1899, pl. 8. 11a.

C 2b. 'Ep. 'ApX., 1898, pl. 9. 31.

C 3. 'Ep. 'ApX., 1899, pl. 8. 7.

C 3a. 'Ep. 'ApX., 1898, pl. 9. 34.

C 4. 'Ep. 'ApX., 1899, pl. 8. 3.

C 6. 'Ep. 'ApX., 1899, pl. 8. 6.

C 6a. 'Ep. 'ApX., 1899, pl. 9. 13 and Fig. 9, CC 6a.

C 7a. 'Ep. 'ApX., 1898, pl. 9. 2. Compare Fig. 9.

CC 13.

C 12. 'Ep. 'ApX., 1899, pl. 8. 11a.

C 13. 'Ep. 'ApX., 1899, pl. 9. 13 and Fig. 9,

CC 13.

C 14. 'Ep. 'ApX., 1899, pl. 9. 11.

- C 3. Round vase with vertically pierced lugs.
 C 3a. Round bowl or Round pyxis.
 C 4. Beaker on a low foot.
 C 6. Fruit dish.
 C 6a. Chalice (often in stone).
 C 7a. Jar with conical neck and four horizontally pierced lugs.
 C 12. Lid.
 C 13. Like C 7a, but set on a low foot (stone).
 C 14. Jug.

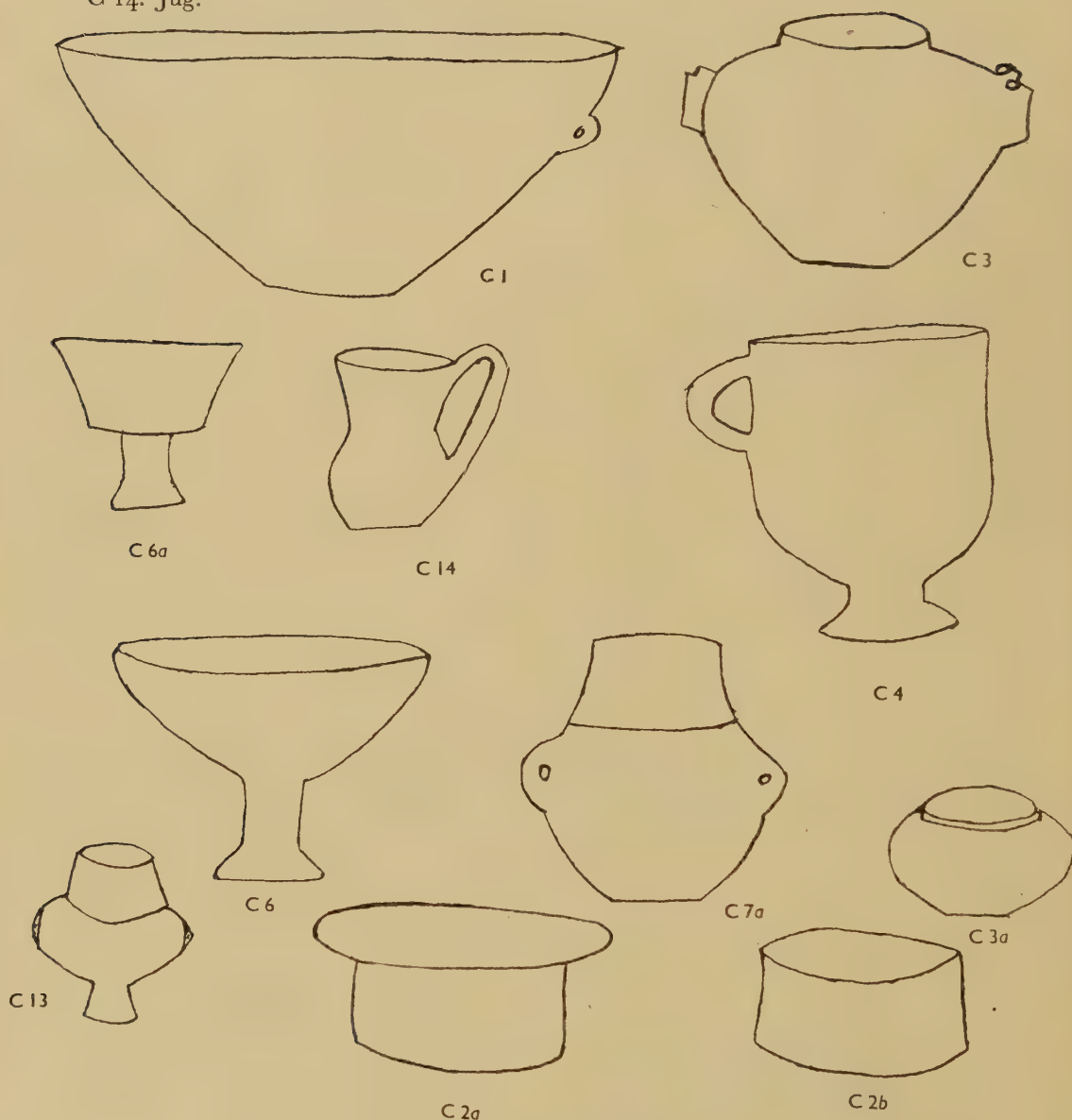


FIG. 8.—CYCLADIC SHAPES.

By kind permission, I figure two stone vases from the Cyclades, in the Ashmolean Museum (Fig. 9).¹

It will be difficult to contemplate these figures representing shapes and not concede that Thessalian B developed out of Thessalian A, and that both owed a great deal to the Cyclades. In particular the new shape features in Dimini pottery, our B 1, 3, 3a, 6, 7a, 7b, are all present in the Cyclades, except depressed pierced lugs; moreover, we are justified in thinking that Cycladic features which reached Thessaly in A times are probably early in the Cyclades.



CC 6a

CC 13

FIG. 9.—STONE VASES FROM THE CYCLADES IN OXFORD.

I shall start with shape C 3, because it is a specific shape, unlikely to occur in two places independently, and because its history is known. It came to Crete in stone from Egypt in predynastic times with a long tubular lug. It was found in a Neolithic house at Knossos, together with a Cretan imitation in stone,² more like our C 3. In the Cyclades the tubular lug was swivelled and doubled, it became four vertical lugs pierced, possibly under Anatolian influence; there is a Trojan³ example very like it. BB 3, a monochrome pyxis at Orchomenos, is exactly the Cycladic shape.

If we accept Southern influence in Thessaly B 3, it is difficult not to see a

¹ Scale slightly under life size:

CC 6a. Æ 247. from Amorgos.

CC 13. Æ 423. from Paros.

Photograph by Miss Godwin.

² See Hall, *The Civilisation of Greece in the Early*

Bronze Age, 43, figs. 32 and 33.

³ Schuchhardt, *Schliemann's Excavations* (translation) 39, fig. 14.

Every kind of pierced lug is found at Troy. See C. Schmidt, *Schliemanns Sammlung*, 6.

connexion between Cyclades C 3 and Thessaly A 3, especially when we remember A 3a, the asymmetrical vase of this shape, apparently a Thessalian effort at a 'duck vase'. The straight-sided pyxis¹ C 2b is another simple vase, but it has a close parallel in A 2a. Moreover the tubular lug AA 9 is a curious feature. It is tempting to suppose that the Early Thessalians either saw another Egyptian 'bird-nest' bowl, or borrowed the tubular handle from the Cretans, who also used it on keeled bowls. The Cretans seem to have derived the keeled bowls in stone from Egypt,² and passed it on to Thessalian A. No doubt the handle reached Apulia by some such route, Mr. Bradford tells me it is common there. The chalice C 6a may have had something to do with putting A 2 on a high foot (see Fig. 9 CC 6a), and the tankard C 4 may have influenced the bell-shaped mug A 4. The tubular handle seems to have been modified in Thessalian A, and also to have reached Gonia³ in the modified form.

In Thessalian B, Cycladic influence is patent. Taken by itself it might be thought that B 1, B 1a is a simple shape, but the correspondence with C 1 is exact. Without the handle, this shape occurs in a Protodynastic alabaster bowl⁴ in the Ashmolean Museum, so this shape may also come eventually from Egypt. We have spoken of C 3: B 6 may have been influenced by the Cyclades, but it may have come from the North. B 7a must have come from the Cyclades (C 7a),⁵ and the Thessalians turned the horizontally pierced lugs into organic handles. In B B 7a they have not yet done so; it still has Cycladic pierced lugs. Once invented, the organic handle could be placed anywhere—on a round vase, for instance (B 3a). Miss Pascoe has a series of sections showing the handles of B jugs and amphorae creeping up, as in B 7c (and probably in the successors of A 4, but material is lacking), till they reach the top in B 7d, a form that endured at any rate till Hellenistic times. They were also, of course, applied to flaring rims like B 8 (see our 79). Lids (B 12) are very rare in Thessaly, common in the Cyclades. Compare lids in Crete.⁶ B 13 seems a rather pointless vase, till we remember its lovely marble prototype (C 13). (See also Fig. 9, C C 13.) Wace lists β and γ monochrome ware together, so the jug B B 14 may be late, but the shape, no doubt, comes from the Cyclades (C 14).

Let us just glance at the subject of decoration, and notice that the earliest Cycladic pottery with its herring-bone patterns had an embroidery effect like the earliest Thessalian A pottery.⁷ If the islanders brought their spiral

¹ For this shape early in Crete, see Evans, *Palace of Minos* i, 114.

² Hall, fig. 43; Evans, *op. cit.*, i, 86.

³ Compare *PT*, 96, fig. 48 k with h. Compare also Gonia, pl. 1b.

⁴ B 137, from El Amrah.

⁵ Compare Fig. 9, C C 13.

⁶ Hall, *op. cit.*, 51, fig. 4b.

⁷ Compare an incised vase with lugs, closer to the original than B 13, *DS*, pl. 16. 2.

style with them, it was not adopted, unless, indeed, we are to suppose that the Danubian style originated at Dimini, which does not seem probable. It does seem likely on the present evidence that Dimini, and not the Argolid or the Corinthia, was the industrial centre for the Dimini style. We may perhaps see a sign of Thessalian influence on the Cyclades in the interlocking-ray patterns on a handle figured by Wace,¹ vase 41 and others at Astakos and on some vases from Syra. Note also the use of bands at Astakos and Syra.

Of course there were other contacts with the Danube area besides the southward passage of the spiral. There were pierced lugs, there, but not the crisp Thessalian-Cycladic type; Thessaly also has depressed lugs. There are Northern conical necks, but these are combined with their own bulbous forms, which never could have been made in flaking marble. It is interesting to see a Thessalian ² form which really did reach the Danube area, a variant of A 2a with a lip offset inside, probably originally connected with a lid. It reached Serbia ³ intact and appears at Koszywotce,⁴ very clumsy, but in essentials the same. Something rather like it appears early in Crete,⁵ but it is a simple shape, and may have occurred in both regions independently.

Although we are not concerned with figurines at Astakos, the evidence of figurines, and probably of seals, confirms our conclusions about Cycladic influence on Dimini shapes. The B pottery style is accompanied by a new type of figurine especially new at Dimini, in stone instead of terracotta, and moreover in marble, though we are not told whether the marble is local. Whereas they had been markedly round and steatopygous,⁶ they are now flat and abstract. Wace ⁷ notices that they are unlike the best Cycladic idols in not having plastic features, but not that they are indistinguishable from many of the poorer examples published by Tsoundas,⁸ and from some of those in the Ashmolean Museum.

We set out to search for the source of some new shape features,⁹ and we seem to have found them all (except depressed lugs), or nearly all in the Cyclades. According to the theory set forth above, Thessalian B pottery style was a local growth, a piecemeal affair, picking up a shape here and a pattern there. It seems also as if the process continued in Greece. The painting technique, the so-called Urfirnis, which was to prevail over most of Greece along with Anatolian shapes in the Early Bronze Age, preceded the shapes, and is already used on Neolithic shapes at Orchomenos and Corinth.

¹ See references on p. 177 below.

² *DS*, pl. 15. 1.

³ *PMac*, pl. 1. 1.

⁴ Oxford 1909. 12. 903.

⁵ Hall, *op. cit.*, 42, fig. 31.

⁶ *PT*, 68, fig. 35.

⁷ *PT*, 83.

⁸ *DS*, pls. 37 and 38; 'Εφ. 'Αρχ., 1898, pl. 11.

⁹ Compare Childe, *Dawn of European Civilisation*, 2: 'A bodily transfer of any North Balkan culture to Greece accordingly seems impossible today.'

Moreover, Neolithic 'grey ware', sometimes remarkably like blue Minyan, connects Neolithic Astakos closely with Corinth.¹

I have tried to show that Thessalian B ware, particularly Dimini ware, is closely connected with Thessalian A ware, and that both are influenced by Cycladic shapes. As might be expected, Astakos pottery is little affected by Cycladic shapes. It more closely resembles the large residue of Thessalian B shapes, most of which are only preserved with weak geometric patterns in Thessaly, but the sherds from Orchomenos shew that there was a good deal of non-Dimini B pottery, with strong geometric² patterns. There is a similar lacuna in shapes for strong geometric patterns in A fabrics. Nearly all the elements of Dark on Light ware patterns at Astakos (called Astakos (*c*) below) can be paralleled at Lianokladi,³ but we do not know how they fitted on to vases. Chaeronea⁴ is the storehouse of complete A vases with geometric patterns, but the patterns of these are simpler than patterns found at Astakos and Lianokladi; moreover, Astakos vases are nearly all three-colour. Is that significant? It is clear from Tsoundas' photograph of his large urn, our A 7,⁵ that its potter liked three-colour effects, though he may have obtained them by the use of thick and thin paint. Moreover, I can confirm Kunze's observation⁶ that three colours are undoubtedly used at Chaeronea on A 3 β ware. If I applied colour criteria exactly, I should have to class my 43 (Pl. 26), which is probably two-coloured, as A, and my three-coloured 41 (below it) as B. Almost the exact shape was found in A ware at Chaeronea (A 7), the corresponding B shape is only a small vase; there were larger B vases of this type, but we do not know the exact shape.⁷ The same difficulty occurs with the bell-shaped jar 31 (Pl. 24 and Fig. 10). It is an A shape and handle (cf. A 4), but again clearly three-coloured.

There are only three certain spirals at Astakos, nos. 5 (Pl. 24), 16 (Pl. 26), and 27 (Pl. 27). No. 27 probably belongs to an A shape, a plate on a high foot, not to a B fruit-stand, but no painted example of either is complete (see B 6, A A 6, and no. 28, Fig. 10 and Pl. 25).

The result of this long study is highly unsatisfactory, so far as concerns Astakos. The painted Neolithic pottery found at Astakos is more like Thessalian A and B pottery than anything found yet anywhere else, but with the exception of one rather doubtful A sherd,⁸ it cannot be exactly equated with either, so I can only call it 'Astakos' pottery. 'Astakos (a) White-ground ware' has a real technical difference from the rest of Astakos pottery;

¹ See p. 179.

² Compare also some of the patterns on *PT*, 46; also on p. 103, fig. 53*d*.

³ See *PT*, 174.

⁴ *PT*, 197 ff. where see the references.

⁵ 'Ep. 'Apx., 1908, pl. α , 1.

⁶ *Orchomenos* ii, 36; pl. II. 2.

⁷ *Gonia*, 67, fig. 16; *Prosymna* ii, fig. 630. 3.

⁸ See p. 173 below.

it is very close to Lianokladi technique, and it is indistinguishable from sherds at Leukas.¹ It is also close to sherds found at Gonia,² near Corinth. 'Astakos (b) Red-ground ware' is not homogeneous, and it is only a little different from Astakos (c). Sherds like 12, 14, 15 recall the technique of Macedonian³ sherds from Kritsana and Hagios Mamas, but not the shapes, and they are at best only scraps. 11 and 16 are in different techniques. No. 19 alone recalls highly polished Dimini ware. 'Astakos (c) Light-ground ware' is the characteristic ware of the excavation. It is well levigated and well finished, with well-designed, strong, geometric patterns. Mr. de Jong's drawing (Pl. 30) shows how well some of the colour has lasted. It is not so highly polished or so well baked as Dimini pottery. The shapes are primitive, only two handles, one set of pierced lugs, one flat foot, two low feet, and a good many round bases. I picked up three sherds of similar pottery at Kryoneri⁴ and one handle in a cave at Meganisi.⁵ The closest⁶ contact is with Chaeronea, and it is tempting to suggest a trade route via the Schiste and Delphi to Kryoneri, then on to Astakos, Meganisi and Leukas.

Crusted ware, 'Astakos (d)' must obviously form another category. Here at any rate it is safe to claim, if not race-movement, at least connexion, between the people who made bowl no. 60, and the people who made crusted bowls in North Thessaly;⁷ spiral pattern, shape and technique are very nearly the same. The date is fairly clear too, for the pattern on an omphalos jar with a similar shape reappears in the Benaki gold bowl, said to come from Euboea. Miss Segall⁸ quite rightly connects it with pottery published by Bittel,⁹ in the Constantinople Museum, from Ahlatlibel.

The same pink paste decorated all the knobs¹⁰ of the polished tumbler no. 58, and there was also white paste on it, probably between the knobs. This paste is fugitive, and perhaps similar knobs on bowls at Orchomenos¹¹ were encrusted, or what has taken off the polish round them? Smaller knobs

¹ W. Dörpfeld, *Alt-Ithaka* ii, Beil. 88. This plate appears to be upside down.

² See p. 173 below.

³ *PMac*, pp. 157-159.

⁴ *BSA* xxxii, 238, fig. 19, nos. 8, 9, 13. Compare the pattern of 13 with a jar from Chaeronea (*PT*, fig. 140c). At the same time a sherd facing p. 238 (Benton, *op. cit.*, fig. 20, no. 3) must serve as a warning of the danger of judging a fabric on one sherd. The strength of the geometric pattern on this sherd was such that even Payne thought it was geometric of the Iron Age. It proved to be a sherd from our no. 43 (Pl. 26), a biconical urn. Single sherds from hand-made Late Mycenaean amphorae from a neighbouring site at Astakos are also technically hard to distinguish from sherds of these urns.

⁵ *BSA* xxxii, pl. 41. 1. Compare handles found at Orchomenos, *Orchomenos* ii, pl. XXI 2a and XX b,

said to be B ware. Sherds like this Meganisi handle were found in the 'Cave of Euripides,' Salamis.

The other handle found at Meganisi (see *loc. cit.*) was of a dark-on-dark type. The shape may have been something like our A 5 or the handle of Astakos 31, but it is coarse and probably it is rather late.

⁶ For close contacts with Corinth in other wares see pp. 173, 179.

⁷ *PT*, pls. IV-VI, from Rakhmani. This ware is widely distributed in Thessaly and Boeotia.

⁸ *Museum Benaki Athen, Katalog der Goldschmiede-Arbeiten*, no. 1, pp. 11 ff., pls. 1-3.

⁹ *Prähistorische Forschung in Kleinasien*, pl. IV. 2, an omphalos jar; cf. the shape of our no. 64 of similar fabric to no. 56.

¹⁰ Wace calls my attention to the decoration of knobs with white paint in A 3 α ware at Tsangli (*PT*, 91).

¹¹ *Orchomenos*, ii, pl. 6.

are combined with paste in Orchomenos (pl. VII 2 and pl. VIII), where it has been put on before firing and is less fugitive. Add the Leukas¹ evidence, and the connexion becomes pretty close. But after Leukas? Not Italy, or at least not yet, but what of that riddle of the South, paste-loving Malta? Paste decoration occurs on a 'tumbler' at Malta, and Ugolini² gives a good photograph of a bowl of a shape quite popular at Astakos (cf. my Fig. 10, 58), decorated with knobs, some of them forming patterns, and all of them buried in paste. The rough 'pellet' ware³ found up and down the West coast and the Ionian islands, and dated once at least to the Late Bronze Age, is probably descended from this early polished knob ware.

To derive the spiral system of Malta from the Danube with Boehlau⁴ and Frankfort is as absurd as to derive Cretan civilization⁵ from either. The painted pottery of Cucuteni⁶ is contemporary with the use of metal. The stratification of Malta is not clearly determined, but the pottery found there with metal is well linked up with the Early Bronze Age of Greece, Troy and the Cyclades.⁷ Perhaps the bone objects thought by Frankfort and Sir Arthur Evans to date the earlier stratum in fact belong to the later, and the closeness of the other Bronze-Age contacts forbids us to consider the Maltese Neolithic pottery as very late. I suggest that while doubtless the main body of Maltese moved westwards, some traders or fugitives moved north, and brought this kind of vase with them to Astakos, then carried it across into Thessaly, and to Chaeronea and Orchomenos. Perhaps, too, the shapes of vases from Astakos and from Eutresis with high rims (see p. 180 no. 72 Fig. 11 below) are influenced by Maltese shapes.

Undoubtedly there was a current going the other way bringing painted pottery westwards, and I should like to suggest one product that the easterners found useful. At H. Nikolaos there was one superb flint (Fig. 14), and flint knives and scrapers are so common on all sites in these parts that I soon ceased to collect them. The island of Karlonisi,⁸ at the mouth of the Bay of Astakos, is strewn with them, and natural flint is common in Ithaca, and in all these islands. Professor Wace says that good flint is rare in Greece;⁹ perhaps the easterners came to collect it. Tsoundas¹⁰ gives the interesting information that the modern Thessalians obtain their flint from the West, from Albania and Epiros.

Mr. Bradford allows me to mention the magnificent flints that he has found

¹ See *Orchomenos*, 17 n. 4.

² *Malta, Origini della civiltà Mediterranea*, fig. 45; also fig. 38, p. 67, from Hal Tarxien.

³ For illustrations and list of references see *Excavations in Ithaca III* (*BSA*, xxxix) 3, pl. 1. 18.

⁴ Boehlau, *Præhistorische Zeitschrift*, 1928, 55. Frankfort, *Early Pottery of the Near East*, ii, 134.

⁵ Boehlau, *loc. cit.*; Ugolini, *Malta*, 276. The

propagation and diffusion of this sort of nonsense has fortunately ceased with the victory of the Allies.

⁶ H. Schmidt, *Cucuteni*, 59.

⁷ For details see my review in *Man*, Dec. 1935, 187.

⁸ See my map *BSA*, xxxii, pl. 38.

⁹ *Chamber Tombs at Mycenae*, 222.

¹⁰ *DS*, p. 328.

in the new series of Neolithic sites he has discovered in Apulia. One in particular, found near San Severo, is close to our Astakos find.

The polished ware was good, but fragmentary. Four sherds (nos. 73-76, p. 181, Figs. 11 and 13) with impressed spirals form a link with a Northern system of decoration.¹

Bowls of grey ware (below p. 179) have been recorded by Mr. Weinberg² at Corinth, and ours are of the same fabric. In fact, the connexions with Corinth are so close that I should like to suggest that a Corinthian contingent joined the East-West trade route perhaps at Kryoneri.³ I should like to call attention to a similar grey ware fabric in Sicily in the Syracuse Museum, from Neolithic sites at Serraferlichio⁴ and Palma di Montechiaro. One bowl from the latter site resembles some of our shapes, and has a pink incrustated pattern not unlike the decoration of bowl no. 60 mentioned p. 171 above. The grey incised ware of Stentinello is not unlike this ware in fabric. There were more handles and lugs in monochrome ware than in the painted pottery.

Take it all in all, this rather inaccessible cave must have been a port of call of some importance, so that our uncomfortable week was not wasted.

CATALOGUE

Mycenaean

1. (Pl. 28). Sherd. Wheel-made from a closed vase, perhaps a stirrup vase. L.H. III.

Neolithic Painted Pottery

*Thessalian?*⁵

Uncertain shape.

2. (Pl. 26). Thick sherd, polished inside, near the neck of a closed vase. Rough grey clay. Polished brown paint on a highly polished light slip. Wavy line of matt black paint, B 3.

Astakos (a) White-Ground ware

Clay darkish, not well fired nor well levigated. Thick white paint, generally polished, added red paint generally polished, matt black paint. All examples figured are three-coloured and painted inside and out. Small fragments were found right at the bottom of the earth in X and in the final passage way (see plan, fig. 1 *b*). For the technique, style of decoration, and shape, compare pottery at Leukas⁶ and also at Corinth.⁷

¹ See the reference to Vinça, p. 181, n. 1.

² Weinberg, p. 503. I am grateful to Mr. Weinberg for his kindness to me at Corinth.

³ See p. 171 above.

⁴ P.E. Arias, *MA* xxxvi, 733, class (d), like bucchero. Plenty of organic handles in the painted pottery, some shapes like Thessalian B, e.g., fig. 90. Montechiaro,

see p. 728.

⁵ The colours do not really fit, and I do not know the shape. This sherd is not like the rest of Astakos painted pottery.

⁶ Dörpfeld, *Alt-Ithaka* ii, Beil. 88.

⁷ *Gonia*, pl. II.

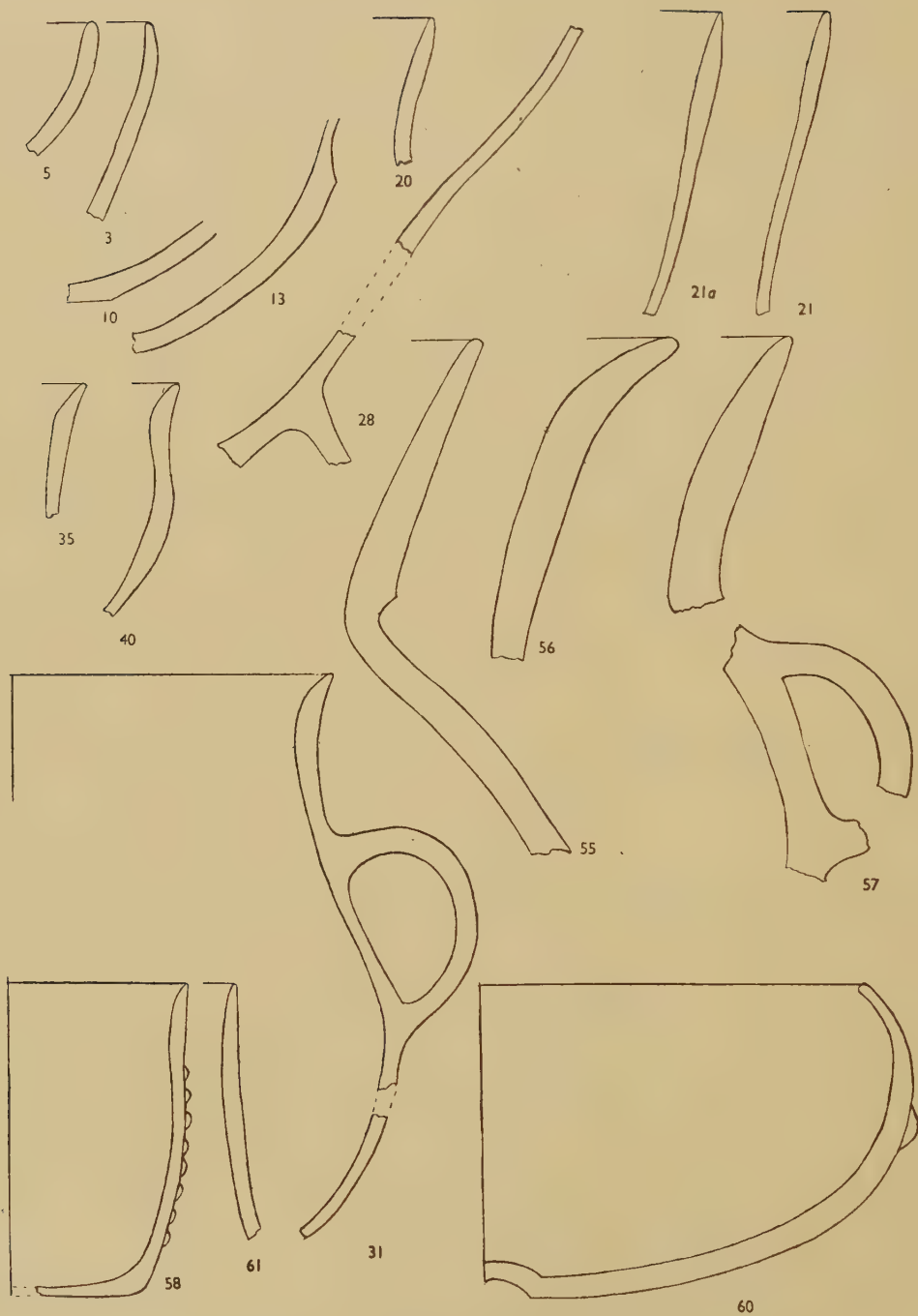


FIG. 10.—SECTIONS OF PAINTED VASES.
Scale 1 : 2.

Bowls with incurving lips (Shape A 1).¹

Nos. 3-9 (Pl. 24).

3. (Pls. 30 and 24, Fig. 10). Diam. of rim 0.102 m. Rim. Y.

5. (Pl. 24, Fig. 10). Rim. Dots on rim, a spiral on the outside, like Dimini spirals.²9. (Pls. 30 and 24). Part of a bowl.³ K.

10. (Fig. 10). Base of a round bowl.

Astakos (b) Red-Ground ware

Rougher clay, thicker fabric. Polished red slip on all or part of the vase. Patterns in black or red, sometimes made with the polishing tool (*e.g.*, no. 11, Pl. 25). No. 16 has a different technique (Pl. 26). Nos. 14 and 20 are three-coloured, the rest two-colour. Most of this ware was found in Y and near the surface.

Bowls.

11. (Pl. 25). Rim. Shape compare 21a (Fig. 10 and Fig. 5, B 2). Patterns inside made with the polishing tool, outside dull red paint. Y.

12. (Pl. 29). Body of a round bowl. Rays from the centre. Y.

13. (Fig. 10 and Fig. 6, B 9). Part of a keeled bowl, round base. Traces of design outside. X. 0.30 m.

14. (Pl. 25). Part of a bowl,⁴ offset inside. Three-colour. Y.

15. (Pl. 25). Part of a bowl, with an offset outside. Y.

16. (Pl. 26). Sherd with a spiral. This has been reserved on a dark polished surface, the rest is covered with matt red paint. Red clay, which becomes black when polished. Y.

Closed Vases.

17. (Pl. 29). Pointed rim with lines from it. It bends out and looks rather like the lip of a jug. 'Embroidery' effect. Y.

18. Round base. Three lines coming down to it. Y.

19. (Pl. 29). Rim. Very heavily polished; like Dimini ware, but 'embroidery' effect (from an open vase).

20. (Pl. 25, Fig. 10). Sherd from a cylindrical neck. Cf. shape of no. 41 (Pl. 26), and the decoration of the neck of no. 43, pl. 4. Three-colour. X. 0.50-0.70 m.

*Astakos (c) Light-Ground ware**Bowls.*21. (Pls. 29 and 30, Fig. 10). Diam. 0.22 m. Rim of a Tumbler⁵ (Fig. 5, B 2a). Outside, fired buff; inside, fired red. X. 0.50 m.

21a. (Pls. 29 and 30, Fig. 10). Diam. 0.111 m. Rim of a rounder bowl (Fig. 5, B 2). Outside and a strip inside, reserved. This sherd is really four-coloured; buff ground, two shades of red, and black. Strong geometric pattern. X. 0-0.70 m.

21b. (Pl. 25). Similar rim. Polish has worn off. X. 1 m. (*i.e.*, found with the skulls). Several other rims of this shape.

¹ *PT*, 198, fig. 140a, in A 3 β ware. Soteriades, 'Εφ. 'Αρχ., 1908, 66, fig. 1.

² For pattern and fabric compare *Gonia*, pl. II k.

³ Compare *ibid.*, pl. II b.

⁴ The shapes of 14 and 15 are uncertain, and I do not know which way up to set them. They are perhaps something like *PMac*, Early Neolithic 1 and 3, p. 135

and pl. 1.

⁵ In Thessaly this is a shape of the decadence. Cf. *PT*, fig. 54 b, B 3 ε. The fabrics are not alike. For the pattern cf. Dörpfeld, *Alt-Ithaka*, Beil. 88 a, top left. This pattern also occurs on the tankard from Monte Tabuto in Sicily (Frankfort, pl. VIII).

22. Diam. 0.14 m. Rim and round base of a semi-circular bowl (Fig. 2, A 1). Inside, dogs' teeth on a reserved band, then dark paint; outside, orange lines, outlined in black and crossed by matt black lines. Like the decoration of Fig. 2, A 1. X. 0.50 m.
23. Diam. 0.26 m. Rim and part of the round base of a similar bowl. Same shape. Outside untidy lines round the rim; groups of lines from the rim to a centre on the base. X. 0.70 m.
24. (Pl. 25). Diam. 0.176 m. Rim and twice pierced lug of a shallow bowl, shallower than the rim of Fig. 5, B 2. Smooth clay. The wavy lines are black, the others orange. Much worn. X. 0.70 m.

Plates on high feet (Shape AA 6).

25. (Pl. 30). Diam. 0.30 m. Rim. For shape¹ see no. 28 (Fig. 10). Probably the base was not high. Compare Fig. 4, A A 6. X. 0.30 m.
26. (Pl. 27, Fig. 12). Diam. c. 0.33 m. Rim and parts of the body of one, perhaps of two vases. Inside matt purple, and highly lustrous black paint; outside, black lines. The paint itself is lustrous, not polished; like modern blacking. Compare Weinberg and Kunze on Neolithic Urfirnis. X and Y.
27. (Pl. 27). Base and rim of another with curving lines. Inside, a spiral. X. 0.50-0.70 m.

The following three are of finer ware.

28. (Pl. 25, Fig. 10). Part of base and body.² Bluish clay. Inside, red paint; outside finely drawn black lines. X. 0.70-1 m.
29. (Pl. 25). Diam. 0.154 m. Rim. Groups of black lines, inside and out; purple line on the rim outside. X. 0.50-0.70 m.
30. (Pl. 25). Sherd. Orange and black, inside and out. Beautiful condition, flat curve.

Jars with out-curving lip. (Shape A 4).

(Bell-shaped mugs (?)).

All these jars are partly painted inside (see Pl. 29, no. 35).

31. (Pl. 24, Fig. 10). Diam. 0.186 m.³ Rim with handle and part of the body. Purple bands and black lines; good condition. X. 1 m.
32. (Pl. 28). Diam. 0.126 m. Rim and part of the body. Purple and black, faded. Two bands below the decoration.⁴ X. 0.70 m.
33. Flat base. Yellow stripe at the turn.
34. (Pl. 25). Rim. Section like no. 31 (Fig. 10). Black paint only. Inside, dogs' teeth on the rim, then black paint.
35. (Pls. 25 and 29, Fig. 10). Rim with a similar section. Brown paint; inside, dogs' teeth. Y.
36. Sherd below the rim. Colour and design exactly like no. 53 (Pl. 30). X. 0.50 m.
37. (Pl. 25). Sherd below the rim. Brown dicing. Y.
38. Sherd. Black lines to an orange band on the bulge. Compare no. 31 (Pl. 24). X. 1 m.

Uncertain Shapes.

39. Sherd, perhaps from a tumbler. Purple and black: inside, red paint. Z.
40. (Fig. 10).⁵ Dia. 0.104 m. Rim. Coarser and in poor condition. Black paint. Y.

¹ For the shape see *PT*, 176, fig. 120, A 3 β. (Contrast Fig. 6, B 6); Weinberg, 500, figs. 9 and 10.

² Cf. Weinberg *loc. cit.*

³ For the shape cf. *PT*, fig. 86 b from Tsani (A 3 β) and fig. 119 c. Note the difference in the handles. Our handle seems half-way to the shape of the much more organic handle found at Tsangli *op. cit.*, fig. 54 d,

B 3 ε. See p. 165 above.

⁴ Compare bands on two vases in the Cyclades.

⁵ Perhaps from a cup or mug (shape A 4 or A 5). At any rate from an A and not from a B shape. Compare no. 31 (Fig. 10) and no. 66 (Fig. 11) in grey ware.

Biconical Urns with High Necks (shapes A 7 and A 7 a, B 7, Pl. 26, no. 41).

Bold skeuomorphic designs, generally in two colours. No flat bases to suit these vases, so probably round bases. No handles. Pieces of about twenty urns. See p. 170 above. Exact shape in a similar fabric found at Chaeronea.

This shape is common in Thessalian wares, sometimes decorated with rays,¹ but rather more simply arranged than ours (see nos. 41–44, 46, 49). Our no. 20 (Pl. 25) may be of this shape. Bands round the lower² (42, a 43), and sometimes round the upper part of the vase (48), appear to be a new feature. It is the sort of simple shape that might occur among any Neolithic people. Urns very similar to ours, with patterns like our 41, Pl. 26, are in the Ethnological Museum in Cambridge, found at Kansu, China.

41. (Pl. 26). Diam. of rim 0.112 m. Present H. 0.25 m. Urn, only a small piece of base missing from the section. Ray decoration: the thick black lines have purple points—no doubt descendants of the tongue edging. Compare examples at Chaeronea showing the development of the motive, and degenerate followers of the scheme of decoration³ at Orchomenos. X. 1 m.
42. (Pl. 26). Diam. of neck 0.13 m. Upper part of urn. Smooth yellow clay: orange and black paint. For the fringe pattern across the vase, compare the flowers on a base at Tsangli (A 3 β),⁴ and a degenerate successor (B 3 δ). X. 1 m. Nos. 42a and 46 are like this vase.
- 42a. (Pl. 29). Sherd. May be part of the same vase; orange paint.
43. (Pl. 26). Diam. 0.14 m. Neck and fragments. Very close decoration, division of the vase into panels.⁵ Good brown paint. X. 0.50–1 m. and elsewhere.
44. (Pl. 26). Neck. Probably two-colour. Y.
45. (Pl. 26). Part of neck and body. Yellow clay, yellow and brown paint, shading to black. X. 0–0.70 m.
46. (Pl. 24). Sherd at the bulge. Polished orange paint, black lines. This vase too is like no. 42. X. 0.50–0.70 m. Another sherd with black lines has a similar section.
47. (Pl. 25). Fragments with lines across the slope of the vase (cf. no. 42). X. 1 m. Perhaps two vases.

¹ *Thessalian pottery with ray decoration.*

A Urns.

DS, pl. 6. 1 and fig. 83, p. 175, both from Sesklo. (Another urn, also A 3 α, said to have been found out of place, at Purghos). PT, 92, fig. 44a (neck uncertain) from Tsangli.

Other Thessalian urns in A wares.

PT, 89, fig. 42a from Tsangli (our fig. 3, A 7a). *op. cit.*, 203, fig. 142a, from Dhrakhmani, and p. 198, from Chaeronea.

B Urns.

Neck (said to be in B ware), Orchomenos ii, pl. XIX, 4. Compare also rays on a B amphora, Orchomenos ii, pl. IV, 1.

Other B vases with rays.

Amphora, PT, 32, fig. 11, and a handle on pl. 1.

Interlocking rays in the Cyclades.

Round pyxis, 'Ep. 'Apx., 1899, pl. 8, 8. Straight-sided pyxis, *ibid.*, 11a. The shapes of both these

vases appear in Thessaly (Shapes A 2a, B 3, B B 3).

² Compare the bands round the middle of two pyxides from the Cyclades, 'Ep. 'Apx., 1899, pl. 8, 5 and 7; also bands on jars from Astakos 31 and 32.

³ Orchomenos (1) pl. XVIII, 2. A ware, short tongues. (2) pl. XXVI, 1b. B ware, red points. (3) pl. XXVI, 4a. Break-up of a design like ours.

⁴ PT, 92 fig. 44c; other examples on pp. 94 and 95, A ware. Contrast the horrid design in B ware, p. 107, fig. 57f.

⁵ Designs in *Prosymna* are said to be in panels (vol. i, 373), but they seem to be nevertheless chaotic (pl. III and vol. ii, 155). No spirals on these vases.

Gonia, pl. I and p. 68: 'design in panels.' The shapes of these 'earlier' vases cut right across Wace's scheme of shapes. They include an organic handle, and fruit-stands; also carinated bowls which Weinberg, digging a few miles away, classed as 'later' (in Grey ware).

Sherds probably from Urns.

48. (Pl. 29). Sherd near the neck. Monochrome brown paint. 'Embroidery'¹ decoration.
 49. (Pl. 25). Sherd. Black lines, points of purple triangles. Complicated design.
 50. (Pl. 24). Sherd. Brown and purple paint. Compare the design of 54. Y.
 51. (Pl. 26). Sherd. Brown paint: Two-colour.
 52. (Pl. 26). Sherd. Leaf-like pattern.² Two-colour.
 53. (Pl. 30). Sherd. X.
 54. (Pl. 30). Two sherds. It is not certain that they belong to the same vase. X.

Pithoi.

55. (Fig. 10). Diam. 0.58 m. Flaring rim. Traces of polish and of red paint. Wavy stripes from the rim.³ X. 1 m.
 56. (Fig. 10). Similar rim, similar paint. X. 0-0.70 m.
 57. (Fig. 10, Pl. 28). Another with a handle. X. and Y.

*(d) Encrusted Ware**Tumbler.⁴*

58. (Pl. 28, Fig. 10). Diam. of base 0.070 m., of rim 0.098 m., H. 0.09 m. Section almost complete. Polished yellow surface shading to brown. Eight rows of knobs, two plain spaces: the knobs had each a dab of pink paste, and in between were traces of white paste. X. 0-0.70 m.

Uncertain Shape.

59. Sherd of another larger vase of a closed shape. Similar interrupted rows of knobs, which were probably similarly decorated. X. 0-0.70 m.

Omphalos Bowl.⁵

60. (Pl. 28, Fig. 10). Section complete. Three knobs covered with pink and white paste: spiral lines set round these. Good polish, on a brown surface. Brown clay with white particles. All over the cave.

Closed Jar.

61. (Pl. 24, Fig. 10). Diam. 0.136 m. Straight rim, sloping in, probably from a conical neck (see Fig. 6, B 7a). Thick white paint or paste, fine brownish red polish. The clay is like Lianokladi clay, the technique like Thessalian A 3 α⁶, but also not unlike that of the other encrusted vases, and as the shape has not been recorded in A 3 α ware, I list it here.⁷

(e) Monochrome Pottery

In this section I have concentrated on the shape, giving only a slight indication of fabric. There is a general resemblance between our shapes and

¹ For the design compare *Orchomenos* ii, pls. XV, 1f. and XVIII, 2a. A 3 β.

² Compare Weinberg, p. 504, fig. 17b, (Neolithic Urfinis ware) for another leaf pattern (B ware).

³ For the decoration and perhaps the shape see *Prosymna* ii, fig. 631. 3, also i, 373. Some smaller vases (shapes A 8 and B 8), have this sort of rim. The shape has also something in common with no. 31: compare a monochrome pithos from Tsangli, *PT*, 88, fig. 41 f (Thessalian A).

⁴ Cf. Kunze, *Orchomenos* ii, pl. VI, 2 for the fabric. There may have been paste here, too. Our vase has been reconstructed slightly too narrow. See also *PT*, 203, fig. 142 e, said to be A 5 γ. For contacts with Malta, see p. 172 above.

⁵ *PT*, pls. IV-VI from Rakhmani. These bowls were widely distributed in Thessaly. Wace recognised that they were not of native origin, and thought that they came from the North. None of the Thessalian bowls had omphaloi, but often a spiral or circle in the middle. Compare the decoration of bowls at Malta, T. Zammit, *Prehistoric Malta*, 104, 105, fig. 19 (perhaps an omphalos).

⁶ See *DS*, pl. 6. 1.

⁷ Compare an early monochrome jug (our Fig. 7, B B 14), *PT*, 87, fig. 40h. For the fabric and decoration compare *PMac*, 149, fig. 15 n. See also a conical shape in A 3 β ware in *Orchomenos* ii, 36, fig. 34 and pl. XVIII, 1 g.

those of Cucuteni and Vinça, but our bowls are wider in proportion to their height, and the bases are round and wide, not flat and narrow (one of the Cucuteni type was found in thin red polished ware). Most like Thessalian A and B.

All the pottery except the roughest is polished, and all the clay is rough. I begin with the vases which come nearest to the encrusted vases.

Red to Buff Ware

Bowls.

(a) *Incurving Rims.*

62. (Fig. 11).¹ Diam. c. 0.20 m. Two bits of rim in polished red ware like Thessalian. A knob on the rim. Y.

63. (Fig. 11).² Rim. Orange clay with white bits. Unpolished. Top of X.

(b) *Outcurving Rims.*

64. (Fig. 11). Diam. 0.123 m. Same clay as No. 62; mottled.³

(c) *Straighter Rims.*

65. (Fig. 11). Diam. of rim 0.10 m., of base 0.048 m.; H. 0.056 m. One-fourth of a small bowl. Like unpainted Dimini ware. Mottled like Vasiliki ware. Y. There are rims of wider bowls, also of deeper thin-walled bowls, some of them fine and well-polished like Thessalian A.

Grey Ware

Slightly better levigated, white particles. The clay is soft. The bowls are generally not polished inside. The fabric is very like ware found at Corinth (see p. 170 above).

Bowls.

66. (Fig. 11).⁴ Diam. 0.222 m. Rim. Yellow clay. X. 0.50–0.70 m. A flat base from Y (diam. 0.08 m.) may belong.

67. (Fig. 11).⁵ Diam. 0.178 m. Rim with a knob. Reddish clay. X. 0.50–0.70 m. A flat base (diam. 0.06 m.) may belong.

68. (Fig. 11).⁶ Diam. 0.178 m. Rim. X. 1 m.

69. (Fig. 11). Diam. 0.268 m. Section of bowl reconstructed ⁷ from several fragments. X. and Y.

Jug.

70. Fragment of jug showing spring of a handle.⁸

Black Polished Ware

This is technically the finest ware found in the cave; thin and beautifully polished, inside and out. The black sometimes shades to a brilliant orange. Only round bases have been found.

¹ Cf. *Orchomenos* ii, 12, Abb. 8a.

² Cf. *Ibid.*, Abb. 8b; Weinberg, 503, fig. 14a.

³ For the shape compare *PMac*, pl. VIII, no. 65.

⁴ Cf. *Orchomenos* ii, 28, Abb. 24 in painted ware. Ours is thicker. This rim starts rather like *PMac*, 143, nos. 37, 38. On what evidence did the author achieve his reconstruction?

⁵ Cf. a narrower vase, H. Schmidt, *Cucuteni*, pl. 12; foot on the right.

⁶ Cf. Weinberg, fig. 15, p. 503; also *Orchomenos* ii, 10, Abb. 4.

⁷ Not unlike the sections of Grey-ware vases at Corinth. Weinberg, 509, fig. 25.

⁸ For the shape of the neck, cf. *op. cit.*, fig. 16.

Bowls.

71. (Fig. 11). Diam. of rim 0.154 m. Rim and red base. Thickest of the group. X. 0.70 m.

72. (Fig. 11).¹ Diam. 0.10 m. Rim and fragments. X. 0.70.

Fragments of about a dozen vases of this shape were found. One had two horizontal knobs on the bulge. There was also a fragment of a jug with a handle.

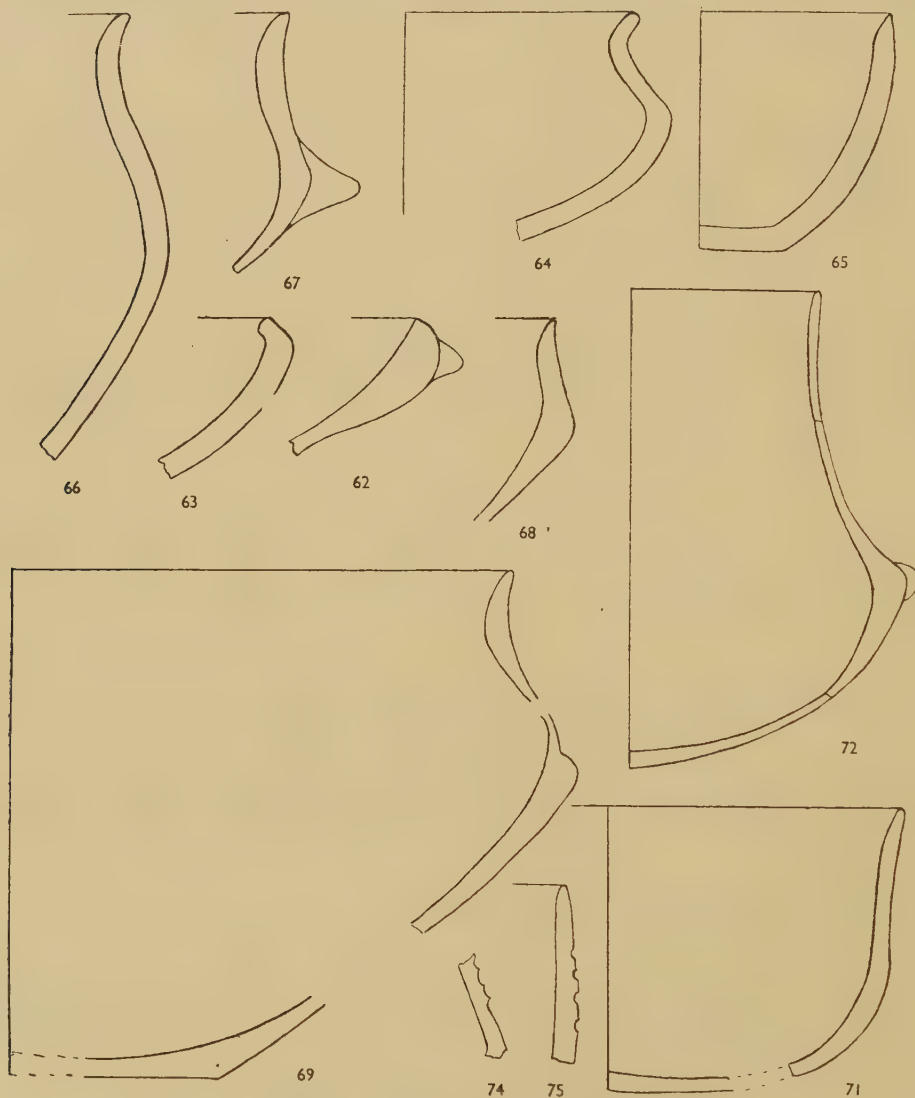


FIG. 11.—SECTIONS OF VASES.

Scale 1 : 2.

¹ Cf. *Orchomenos*, ii, 10, Abb. 3; Goldman, *Eutresis*, 77, fig. 89a, b. The example figured by Miss Goldman from Vinça has not got the long rim which character-

izes these vases and which is rather a rare feature. The Thessalian example which she quotes, *DS*, 243, fig. 145, is our shape B2a!

Bowls with impressed decoration.

73. (Fig. 13). Sherd. Three inscribed semicircles on the bulge.¹ X. 1 m.
 74. (Figs. 11 and 13). Another sherd, similar decoration.
 75. (Figs. 11 and 13). Diam. 0.21 m. Rim. Four inscribed semicircles hanging from it. Perhaps a semicircular bowl of shape A 1. X. 1 m.
 76. (Fig. 13). Another rim with more semicircles. Y.

*Coarse Ware**Pithoi*

Pithoi with straight rims were used in Ithaka² throughout the Bronze Age. Those at H. Nikolaos show more polish. The shapes of base and rim are similar to the Bronze Age shapes. Finger-marking and plastic ornament is common. There are similar vertical handles.

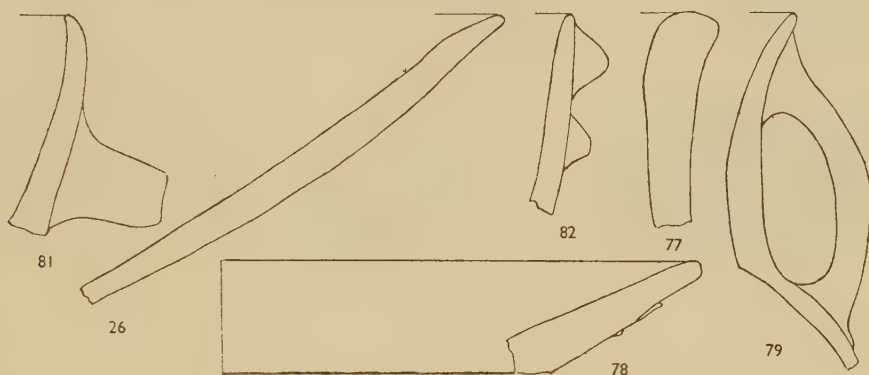


FIG. 12.—SECTIONS OF VASES.

Scale 1 : 2.

77. (Fig. 12). Rim. Rough surface.

Ashet.

78. (Fig. 12). Diam. 0.25 m. Two fragments. Mark of an arcaded lug. Cf. similar cooking-plates in Ithaka.³ From K.

Jug.

79. (Figs. 12 and 13). Vertical handle from the rim. Orange clay with white bits, no polish. X. 0.50-0.70 m.

Bowl.

80. Rim with a knob. Similar fabric to 79. X.

Lugs and Knobs.

81. (Fig. 12). Rim with a blunt lug from a bowl. X. 0-0.70 m.
 82. (Fig. 12). Similar rim with two knobs. Y.
 83. (Fig. 13). Horizontal lug with finger-marking.⁴ X. 0.56 m.

¹ Cf. M. Vassits *Pr. Zeit*, ii, pl. 11 b, foot from Vinça. See also for impressed spirals Fiala and Hörnes, *Butmir*, ii, pl. VIII. Magnificent flints were found at this settlement.

² From Polis, *BSA* xxxix, fig. 1. 2 : pl. 1. 1.

³ From Polis, *ibid.*, pl. 1, 15; from Aetos, Heurtley, *BSA* xxxiii, 57, 108.

⁴ Cf. Blegen, *Zygouries*, 121, fig. 114, 5.

This is the only object found in the stratified area, which is also found in Bronze-Age layers. In quality it is like similar lugs found at Armenochori, Macedonia, in an Early Bronze Age layer. All the usual types of lugs were common, beaked and forked, horizontal and vertical.

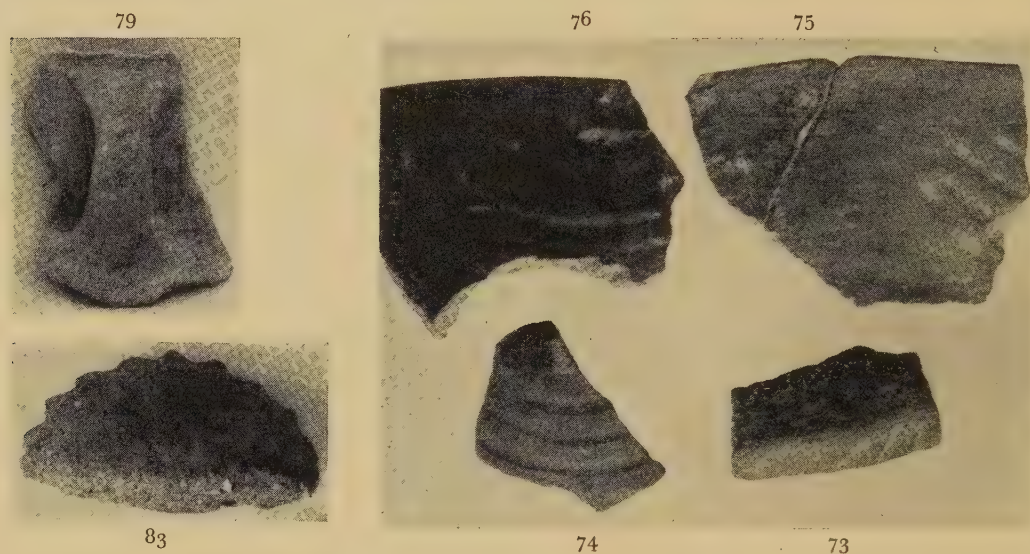


FIG. 13.—MONOCHROME POTTERY.
Scale, 79, 83, 1 : 2 ; rest, 2 : 3.

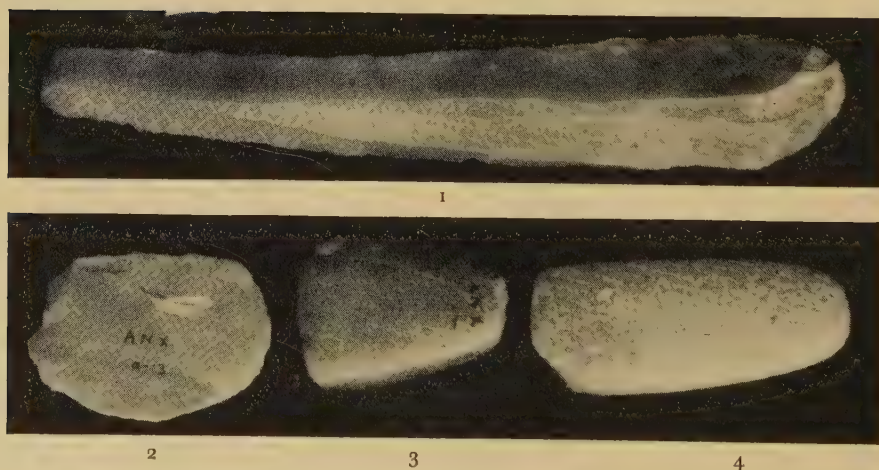


FIG. 14.—STONE INSTRUMENTS.
Scale 1 : 2.

*Stone Tools**Flints.*

1. (Fig. 14). Length 0.24 m. Knife. Reddish-yellow rather transparent. Large for Greece, but it can be paralleled at Butmir,¹ and Apulia.² There were fragments of many smaller knives. Bottom of X.
2. (Fig. 14). Scraper. Of these there were an infinite number of all shapes and sizes.

Polished Axes.

- 3, 4. (Fig. 14). Both of the unbored variety. Bottom of X.

Professor Koumares kindly sent me a report on the skulls found in the cave, but as I find that he has already published it elsewhere,³ and as Mr. J. L. Angel has also published a detailed report,⁴ I omit it from this paper.

I have to thank Professor Wace for continual help and encouragement and for reading an early draft of this paper, Professor Childe for reading the introduction. Both Professors have corrected some mistakes, I alone am responsible for those that remain.

S. BENTON.

¹ Bittel, *op. cit.*, pl. XVII.

² See p. 172 above.

³ 'Ελλ. Ἀνθρώπι. Ἔτ. Πρακτικά xii (1935), referred to by Angel, *ll. cc. infr.* Velde (*ZfE* xliv, 847) publishes a skull from Choirospilia in Leukas, with an index

of 81, which he considers of Neolithic date. The evidence is slight, fragments of one pot, not published nor clearly described. Cf. Angel, *Hesperia*, xiv, 291.

⁴ *AJA* 1945, 252-4, pl. X; *Hesperia* xiv, 291.

ANTIQUITIES OF AMARI.

AMARI is the district of Crete which lies south-west of Mount Ida. It is a hill-district, consisting mainly of the slopes of Ida and Kedros, which with its craggy sides and hundred springs is no unworthy rival to Ida. Between the two mountains lies the valley of the river Platys. Amari forms an eparchy, with thirty-nine villages, but no large centre of population. The villagers, farmers and shepherds, are an old-fashioned folk; they still maintain many of their traditional customs, dispense an open-handed hospitality, and have more than their share of the war-like virtues of the Cretans.

Amari is easily approached from two sides only. From the north an easy pass leads from Rethymnos and Arkadi Monastery. To the south the valley of the Platys leads to the sea near Ayia Galini (the ancient Soulia) and to Tymbaki and the Mesara plain. Side routes lead into the lower part of the valley, the Abadhia, from Kamares to the east, and down the Akoumia valley from the west. The eastern side of the valley is formed by the precipitous sides of Ida, up which lead a few shepherds' paths. North of the Akoumia valley, the western side is blocked by the solid mass of Kedros. North of Kedros are lower mountains, Samitos, Soros and Panas, reaching three to four thousand feet, over which mountain paths lead into Amari from west and north-west. There is only one motor road, which comes from Rethymnos, and has remained a dead end; Ayia Galini, which lies outside the eparchy of Amari but forms part of the natural area, is connected by road with Rethymnos and via Tymbaki with Heraklion. The main routes passing through Amari are described by Pendlebury¹ and shown in Fig. 1²; to those which he enumerates should be added that from Tymbaki and Apodhoulou via Ayios Ioannis, Ano Meros, Yerakari to the west.

Amari is thus remote from the world, and has served as a place of refuge, both after the Venetian conquest when the Vlastoi and other noble families withdrew there, and again in recent history. For the same reason it has attracted little attention from travellers and archaeologists. But it is a fertile area, well-wooded and full of water. The lower slopes produce excellent oil, and wheat which makes some of the best wholemeal bread I have ever eaten. The cheeses of Ida and Kedros are second to none in Crete. The high-lying villages of Ano Meros, Yerakari and Meronas, cool and fresh and shady in summer, produce apples, cherries, and all kinds of fruits. Ano Meros has a sweet, full-bodied red wine which would be better known if the

¹ *The Archaeology of Crete*, 13.

² The maps in Figs. 1-2 were drawn for me by my

sister, Miss M. I. Dunbabin, from material kindly supplied by the Royal Geographical Society.

Amariots marketed it instead of drinking it all themselves.¹ There are still remains of oak woods which no doubt were once extensive. The district is capable of supporting a number of flourishing communities.



FIG. 1.—VILLAGES AND PATHS OF AMARI.

It is divided naturally into three areas, the names of two of which show that they go back to Venetian times. The lower valley of the Platys with

¹ Vine-growing in antiquity is attested by the types of the coins of Sybrita (bunch of grapes, kantharos in

the hand of Dionysos: see Svoronos, *Numismatique de la Crète Ancienne*, 313 ff.).

the adjoining foothills forms the Abadhia, already mentioned. Its largest villages are Apodhoulou, Platanos, Nithavris, Kouroutes. It was stated once that the Abadhiots are of Arab or Saracen descent, and preserve traces of this in their language and customs: Pashley knocked this theory on the head.¹ A reminiscence of Saracen raids is preserved in a legend attached to the ruined village of Gomará, on the west side of the lower Platys. On the approach of the Saracen fleet, it is said, the men of the village hid their women and children, their flocks and herds and their valuables in a cave, whose mouth they blocked with a huge stone. They then gave battle and were killed to a man. So the secret to the cave died with them, and the treasure is still there, if anyone could discover the entrance.

The Abadhia is divided from the upper valley of the Platys by a line of low hills, through which the river flows in a deep gorge. This upper valley is called the Komata. Its chief villages are Fourfouras, Vizari, Monasteraki, and Vistayi. It also contains the former monastery of Asomatos and the tiny capital of the eparchy, Nevs Amari, successor to Sybrita, the centre of the district from classical to early Venetian times. No clear line separates the Komata from the third division, the μέσσα χωριά or innermost villages. These are the high-lying villages on the slopes of Kedros and the mountains to the north of it. Biggest of them are Ano Meros and Yerakari, two of the loveliest villages of Crete before they were burnt by the Germans on 22 August 1944, and Meronas. To this division may be added the villages of Patsos, Pandanassa (so spelt, called Adhanasso) and Voliones on the north side of Mount Panas.

Most of the known archaeological sites in this area were discovered by Pendlebury or by Emmanuel Akoumianakis, who was a native of Yerakari. It is ill gleaning after Pendlebury; but I had the opportunity during the war of seeing a number of unrecorded sites and casual finds. These I put on record as a small contribution to the archaeology of Crete, and as a token of gratitude to my hospitable Amari friends.

Fig. 2 and the following list give all the known sites of Amari. Excavated sites, of which there are six only, are marked in capitals on the list.

1. Sybrita (modern Thronos). Classical town (walls). Spratt, ii, 102 ff.; Halbherr, *AJA.* 1896, 569 ff.; Guarducci, *Inscriptiones Creticae*, ii, 289 ff.
Coins, Svoronos, *Numismatique de la Crète Ancienne*, 313 ff.
2. Yena. Greco-Roman site found by Pendlebury, 363.
Inscriptions (belonging to Sybrita), Halbherr, *op. cit.*, 590 ff. A suburb of Sybrita, with cemetery from which the inscriptions come.
3. Bene (Veni). Walls at north end of hill. Spratt, ii, 105; Pendlebury, 340, 349; Guarducci, *Inscr. Cr.* ii, 216.
4. Walls and archaic sherds at south end of hill, Pendlebury, 340.

¹ *Travels in Crete*, i, 300.

5. PATSOS. CAVE OF HERMES KRANAIOΣ. Excavated by Halbherr, *AJA* 1896, 593; *Museo Italiano*, ii, 913; Evans, *Mycenaean Tree and Pillar Cult*, 27; Pendlebury, 346, 349; Guarducci, *Inscr. Cr.* ii, 102.
L.M. III figurines, classical offerings, inscription of Roman period.

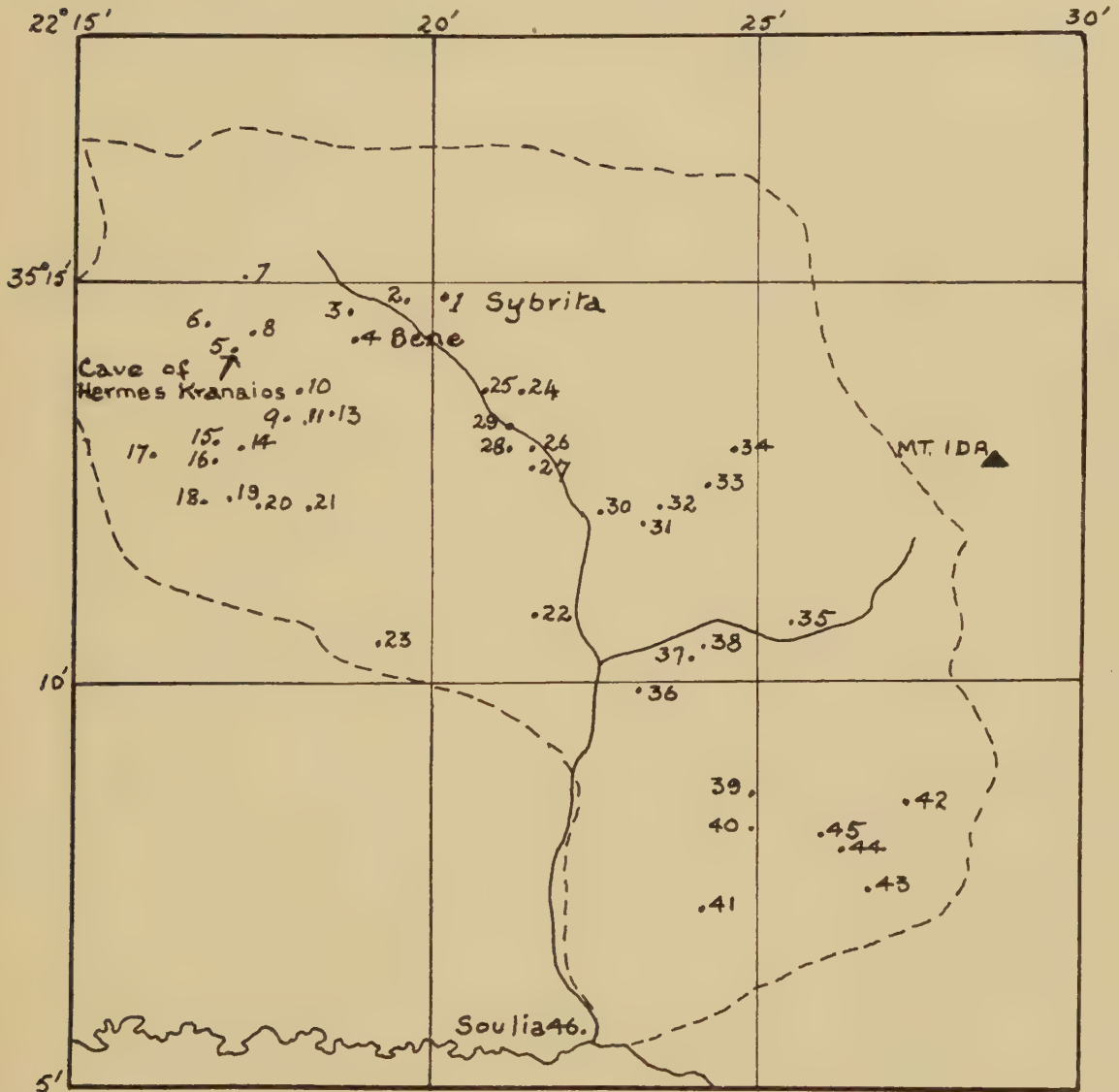


FIG. 2.—ANCIENT SITES OF AMARI.

6. Cave at Khalara, west of village. M.M. III sherds found by Pendlebury, 148, 175.
7. Cave near church of Ayios Antonios, in gorge. L.M. III sherds found by Pendlebury, 262.
8. Roman site at Kefalia, found by Pendlebury, 370.

9. Meronas. Casual L.M. III finds, Pendlebury, 262.
10. Sokhora. Hellenistic sherds found by Pendlebury, 360.
- 11-13. Tsokhoura, Makrydiana, Moskhais: Roman sherds found by Pendlebury, 370.
Inscription of Roman period, Guarducci, *Inscr. Cr.* ii, 296-7.
14. ELENES. CAVE N.E. of village excavated by Marinatos, *AA* 1933, 295 ff.; Pendlebury, 55.
Sub-neolithic stone axes, sherds of all periods from neolithic to classical.
15. KORFI TOU KOUKKOYIANNI, north of village. E.M. houses excavated by Marinatos:
Karo, *AA* 1932, 177; Pendlebury, 49, 55.
E.M. I pottery of Pyrgos type.
16. Petres, below site 15. L.M. surface finds, Karo, *l.c.*
17. Mesonisi. Ayios Onoufrios, above village. E.M. II site found by Pendlebury, 76.
18. Yerakari. Kokkinos Detis. Casual L.M. III finds in cave, Pendlebury, 261.
- 19-21. Psarais, Ayios Ioannis, Palaioklusia: Roman sherds found by Pendlebury, 369.
22. Ano Meros. In cutting in path leading from village to Kefalovrisi, neolithic and later sherds found by writer, 1945.¹
23. Tripiti. Bones of an uncertain period were found in a cave during the construction of the cheese-house some years ago.² The cave lies at a height of about 4000 ft. on Mt. Kedros, and has water in it.
24. Vistayi. Palaio kapsou south of village: M.M. III sherds found by Pendlebury, 175.
25. Asomatos. Roman site found by Pendlebury, 369.
26. MONASTERAKI. KHARAKAS, east of village. M.M. site found by Pendlebury, 291, and
M.M. houses excavated by Jantzen in 1942. *AA* 1943, 332 ff.
27. AYIA KIRIAKI. L.M. site excavated but unpublished, Pendlebury, 293.
28. Roman walls in village, Pendlebury, 370.
29. Skoufia, north of village. Roman vaulted building reported by Pendlebury, 371.
30. Vizari. Ellenika (extensive medieval site).³ Casual L.M. III finds reported by Pendlebury, 262.
31. Knoll south of village, Roman sherds, Pendlebury, 371.
32. Wall found in garden of Emmanuel Paradeisanos, date uncertain.
Gold jewellery is reported to have been found in the neighbourhood.
33. Fourfouras. Koumos, chasm 10 min. west of village: Hellenistic or Roman vases, in possession of G. Taxakis.
34. Kontogonate. Cave, $\frac{3}{4}$ hour west of village; classical sherds found by writer.
This small, inaccessible and uncomfortable cave must have served as an occasional refuge.
35. Kouroutes. Roman sherds found by Pendlebury, 370.
36. Ayios Ioannis. Near church of Ayia Sofia, west of village: M.M. site reported by K. Paradeisanos.
37. In village: Roman pottery and glass found in courtyard of G. Koronakis' house.
38. Eastern outskirts of village: gold jewellery from a site here reported by K. Paradeisanos.
39. APODHOULOU. Gournes. E.M. settlement found by Pendlebury, 289.
40. SITE south of village: M.M. III house excavated by Marinatos, *AA* 1934, 251; 1935, 246 ff.; Pendlebury, 175, 231. Further M.M. houses excavated by Jantzen in 1942.
There is a considerable settlement of the M.M. III-L.M. I periods.
41. Kastri, south of village: Hellenic remains, Pashley ii, 303 (identified by him as Psykhion); second century relief with inscription, Guarducci, *Inscr. Cr.* ii, 312-13.
42. Ardhaktos. Roman sherds, Pendlebury, 369.
43. Sata. Ayios Dimitrios, south of village. Larnax, presumably L.M. III, reported to the writer to have been found some years ago near the ruined church. This church

¹ Miss E. Eccles has kindly confirmed my opinion that one of these sherds is neolithic.

² My informant added that on hearing of the approach of archaeologists the villagers bundled the bones into a chasm in the cave, fearing that the archaeologists

would insist on excavating and thus delay the construction of the cheese-house.

³ In view of which local folk-etymology derives the name Vizari from Byzantion.

was at one period of Turkish rule the only one allowed to function in the Abadhia, and is perhaps the monastery from which the district takes its name. But I saw nothing ancient on the site.

44. Skouri, knoll north of village: archaic and classical sherds found by writer.
45. Rizikas. Coin of Kydonia in possession of writer (for type cf. Svoronos, *op. cit.*, 102, no. 24) and Roman lamp, in possession of G. Menadakis, both said to have been found east of village.
46. Soulia (modern Ayia Galini). Roman remains, Pashley, i, 304; Halbherr, *AJA* 1896, 593 ff.; Pendlebury, 371; Guarducci, *Inscr. Cr.* ii, 278; L. Robert, *Rev. Phil.* xviii, 31 f. Roman bronzes found in the sea, Theophanidis, *Ἑπετηρίς Ἑταιρείας Κρητικῶν Σπουδῶν*, i, 610; ii, 529; Marinatos, *AA* 1937, 229 ff.; Pendlebury, 384.
47. Amari, site uncertain. L.M. signet-ring in Rethymnos Museum. Evans, *JHS.* xlv, 66, fig. 56.

The occupation of Amari in the neolithic period is not yet well attested, for the stone axes and sherds of neolithic type in the Elenes cave may belong in date to the subsequent period, and the single sherd from site 22 near Ano Meros cannot be used to establish anything. The remains of the E.M. period, chiefly represented by the excavated sites at Elenes, show Amari as a poverty-stricken backwoods area. It is not until M.M. III, with the excavated sites of Apodhoulou and Monasteraki and the considerable unexcavated site near Ayios Ioannis, that any sign of the good life is apparent. There is a considerable increase in sites in L.M. III, which Pendlebury explains as an expansion from the Mesara forced on the Cretans by the loss of their overseas trade.¹ It may be as Svoronos has suggested, that the lower basin of the Abadhia belonged in antiquity to Phaistos.² The region has to-day close links with the Mesara.

There was in classical times only one city within Amari, on the extensive site of Sybrita. The neighbouring remains at Yena and Asomatos may be regarded as those of suburbs of Sybrita. The fortress of Veni, which commands the approaches to Sybrita from the west and, through the Prasses gorge which is followed by the modern road, from the north-west, is complementary to Sybrita, and with it assured command of the northern entrances to Amari; so it may be regarded as an outpost of Sybrita. The worship of Hermes Kranaios at Patsos may also belong to Sybrita, on whose coins Hermes is a regular type.³ A number of new finds of the archaic and classical period have now been made, but need indicate no more than the presence of villages or farmhouses. Finally, the Roman period, as everywhere in Crete,⁴ shows a wide spread of habitation.

Many of the sites are caves. Almost every village in Amari, as in most of Crete, has its cave which served as refuge to the population in Turkish times. The cave excavated above Elenes is one of these. Many of these

¹ *Op. cit.*, 239.

² *Numismatique de la Crète Ancienne*, 313.

³ Svoronos, *l.c.*

⁴ Cf. Pendlebury, 365.

caves were reoccupied by fugitives under the German occupation. It is likely that most of the caves with ancient remains were occupied for this purpose in antiquity. There is no indication that any of these caves were sacred, except that of Hermes Kraniaios near Patsos, which received dedications from L.M. III to the Roman period, though not continuously, as far as can be told from the excavation report.

Most of the other sites, as may be seen from the comparison of Figs. 1 and 2, lie on or near main routes. The villages of Apodhoulou, Ayios Ioannis, and Vizari stand out as centres of paths. Two of these are among the three old villages of Amari (Apodhoulou, Vizari and Yerakari) which have Byzantine or Venetian remains. They are also centres in the neighbourhood of which many sites of various dates have come to light, and are the areas which offer the best prospects of further investigation.

* * * * *

The following newly-found sites in other parts of Crete are to be added to Pendlebury's lists. My knowledge of excavations carried out during the German occupation comes from a report by Mr. N. Platon¹ and an article by U. Jantzen in *Veste Kreta* (German newspaper for their forces in Crete), 18 Feb. 1943. The new sites in Eastern Crete are incorporated from F. Schachermayr, *Vorbericht über eine Expedition nach Ostkreta* (AA 1938, 466 ff.). Other sites are taken from the full reports of Greek archaeologists in Ἑπετηρίς Ἑταιρείας Κρητικῶν Σπουδῶν, whose completeness might serve as a model to be followed in other districts and countries.

Map 3 and p. 44 (Neolithic)

GOUVERNETO Monastery, Akroteri, cave-shelter near, excavated by Jantzen in 1942.

AA 1943, 337.

APTERA. Stone axe. BSA, xxxv, 137.

EPANOKHORIO, Ierapetra. Female statuette in Giamalakis Collection, Heraklion; neolithic sherds found near find-spot. E.E.K.Σ., iii, 490.

Map 5 and p. 78 (E.M. II)

VROKASTRO. Sherds of 'mottled ware', AA 1938, 469.

PISKOKEFALO. E.M. II sherd, *ibid.*, 474.

KHRYSOKAMINO. Foundry slag; E.M. II sherd (?), *ibid.*, 472-3.

Map 6 and p. 92 (E.M. III)

APESOKARI. Circular tomb and settlement, E.M. III-M.M. I, excavated by Germans in 1942. Cf. Pendlebury, 290. AA 1943, 331 f.

ANTHROPOLITOI. E.M. III-M.M. I sherds, AA 1938, 478-9.

MARONEIA. E.M. III stone pyxis, AA 1937, 228, fig. 7 (referred to Pendlebury, 385, under SITIA).

Map 7 and p. 124 (M.M. I)

APESOKARI, as above.

ANTHROPOLITOI, as above.

CANEA (Profitis Ilias). Graves, E.E.K.Σ., iii, 484.

PRASES (above AMNISOS). Deposit of pottery in well. *Ibid.*, 489.

KAVOUSI. M.M. I sherds from village, AA 1938, 470.

¹ Quoted by kind permission of the Archaeological Section of the Greek Ministry of Public Education.

GOUDHOURES (Dhasonari). Site with M.M. I, M.M. III, geometric and classical sherds, *ibid.*, 479.

Map 9 and p. 175 (M.M. III)

CANEA. Pithos burials found within modern town, *E.E.K.Σ.* iii, 484.

PRASES. M.M. III house excavated by Platon, 1939-40, *ibid.*, iii, 489; iv, 271.

POROS, Heraklion. Cave-tomb, M.M. IIIb-L.M. I, *ibid.*, iv, 270.

KAVOUSI (Evraika). M.M. III site. Sherds also from village. *AA* 1938, 469-70.

FOVOLIES. Site with M.M. III, L.M. III, geometric, classical and Hellenistic sherds, *ibid.*, 478-9.

ANTHROPOLITOI. M.M. III sherds, *ibid.*, 477-8.

GOUDHOURES. See above.

Map 10 and p. 231 (L.M. I)

POROS, as above.

PRASES. M.M. III house continued to be occupied, *l.c.*

KAINOURIO KHORIO, Pediada. Minoan building, L.M. I sherds, *E.E.K.Σ.*, iv, 270.

PRASOS (Skales cave). L.M. I sherd, *AA* 1938, 474.

Map 11 and p. 236 (L.M. II)

EPISKOPI, Ierapetra (Spiti Froulaki). L.M. II larnax and vases in Ierapetra Museum, *ibid.*, 471.

Map 12 and p. 261 (L.M. III)

PLOKAMIANA. False-necked amphora, *E.E.K.Σ.*, i, 60.

AYIOS MYRON. Rock-cut tombs, *ibid.*, iii, 489.

POROS. Poor graves, *ibid.*, ii, 535.

KATSABAS, Heraklion. L.M. IIIa bothros, *ibid.*, iv, 271.

MOIRES. Rock-cut tombs, *ibid.*, iii, 489.

SIVA. Rock-cut tomb found in 1941.

VORITZA, Pediada. Graves, *ibid.*, iv, 270.

KAINOURIO KHORIO, Pediada. Graves, *ibid.*, iii, 490.

PAKHYAMMOS. Cemetery, *AA* 1938, 468.

KRITSA. False-necked amphora in Ierapetra Museum, *ibid.*, 471.

SELI KALOYERON, 5 km. N.W. of Ierapetra. L.M. IIIb false-necked amphora, *ibid.*

KALAMAFKA. Tholos tomb found in 1941; date uncertain.

LASTROS (Langadhas). L.M. IIIb bronze sword and false-necked amphora, *ibid.*, 473.

FOVOLIES. See above.

Map 12 and p. 262

PANGALOKHORI. Add L.M. III sarcophagus found at Ayios Nikolaos in 1940, *E.E.K.Σ.*, iv, 268.

EPISKOPI, Pediada. Add other L.M. III graves at Khristos and Kavouri; Minoan settlement on hill Kefala above Kavouri, *ibid.*, iv, 270.

Map 12 and p. 265

EPISKOPI, Ierapetra. Add L.M. IIIa rock-cut tomb, *ibid.*, iv, 273.

GOURNIA. Add L.M. III megaron, Oelmann, *JdI.* 1912, 38 (cf. Matz, *Gnomon*, 1940, 6).

Map 14 and p. 291 (M.M. uncertain)

POROS. Well with M.M. deposit excavated in 1938, *E.E.K.Σ.*, ii, 535.

Map 15 and p. 293 (L.M. uncertain)

PIYI. Grave, *ibid.*, ii, 529.

ASTRITSI. Sarcophagus in Heraklion Museum, *ibid.*, iii, 490.

THRAPSANOS. Square rock-cut tomb excavated, *ibid.*, iii, 489.

SKHOINIAS, Mirabello (Koprana) (cf. Pendlebury, 124). L.M. pithoi, one with inscription, *ibid.*, 491.

Map 16 and p. 297 (uncertain Minoan)

GRALYGIA. Site and sherds, *AA* 1938, 471.

LIVARI. Sherds, *ibid.*, 479.

ADHROMYLI. Cyclopean wall, *ibid.*, 480.

Map 17 and p. 313 (Protogeometric)

VRYSES, Kydonia. Two Protogeometric graves found at Timios Stavros in 1939, *E.E.K.Σ.*, iii, 485.

Tso. Sub-minoan amphora, Heraklion Mus. no. 9319, *AA* 1938, 478.

Map 18 and p. 323 (Geometric)

FOVOLIES. See above.

GOUDHOURES. See above.

ANTHROPOLITOI. See above.

TOURLOTI (Kastri). Geometric site, *ibid.*, 473.

KOKHLAKIES (= KAROUBES).¹ Sherds, *ibid.*, 477.

Map 19 and p. 340 (archaic)

EVANGELISTRIA near Matala. Coin hoard of Aeginetan turtles found in 1943.

KHONDROS, Viannos. Archaic terracotta female protome. Acropolis on Kastri near by, date uncertain. *E.E.K.Σ.*, iii, 490.

KHERSONISOS. Archaic inscription published by Petrou, *Ἑλληνικά*, x, 204.

AVGO. Fragment of orientalising relief pithos, *AA* 1938, 480.

ROUSSA EKKLISIA (Timios Stavros). Archaic temple site, *E.E.K.Σ.*, iii, 490; cf. *AA* 1938, 474-7.

Map 19 and p. 340

ONITHE. Add archaic poros seated statue (headless), *E.E.K.Σ.*, iii, 485.

Map 19 and p. 342

GORTYN. Add archaic temple with poros sculpture on acropolis, *ibid.*, iii, 488.

Map 19 and p. 344

SITIA. Add dedalic terracotta head, Marinatos, *AA* 1937, 231, figs. 10-11.

Map 20 and p. 349 (classical)

KERAME (Kionia). Clay stamped impression representing Europa, *Ἐπιτύμβιον Τσοῦντα*, 452 ff.; fourth-century inscription, Guarducci, *Inscr. Cr.* ii, 310 ff.; *Ἀφιέρωμα Χατζιδάκι*, 72 ff.

FOVOLIES. See above.

GOUDHOURES. See above.

Map 20 and p. 353

ITANOS (Vai). Walls, with classical, Hellenistic and Roman sherds, *AA* 1938, 477.

Map 20, p. 349 (classical)

APTERA. Building of Greek period excavated by Jantzen in 1943. *AA* 1943, 337 f.

Map 21 and p. 360 (Hellenistic)

PLOKAMIANA. Graves, *E.E.K.Σ.*, ii, 528.

HYRTAKINA. Marble statue of Pan found, and small shrine excavated, 1938-9, *ibid.*, ii, 528; iii, 484.

GAVALOMOURI. Grave, *ibid.*, iv, 268.

AYIOI DHEKA (near). Gold coins of Arsinoe Philadelphe found recently.

VOULISMENI, Mirabello. Marble head of youth found, *ibid.*, iii, 491.

ISTRON (Katevati, nr. Kalokhorio, Ierapetra). Hellenistic graves with silver, silver-gilt and bronze jewellery, *ibid.*, iv, 274.

KAVOUSI (Evraika). Hellenistic-Roman site, *AA* 1938, 469.

FOVOLIES. See above.

ITANOS (Vai). See above.

Map 22 and p. 364 (Greco-Roman)

AYIOS NIKOLAOS. Add headless marble statue of Aphrodite found in harbour in 1937, *E.E.K.Σ.*, i, 618.

Map 23 and p. 369 (Roman)

PERIVOLIA, Enneakhoria. Grave, *ibid.*, ii, 528.

KROUSTALLENIA Monastery. Roman remains in cutting for road, *ibid.*, ii, 533.

KAVOUSI (Evraika). See above. Roman sherds also from village.

ITANOS (Vai). See above.

¹ On the names of this site see Bosanquet, *BSA* xl, 61.

- VASILIKI. Roman walls. *AA* 1938, 470.
MONASTERAKI, Sitia. Roman walls, *ibid.*
MESA MOULIANA. Roman graves, *ibid.*, 473.
KOKHLAKIES (= KAROUBES). Sherds, *ibid.*, 477.
ZIROS. Roman coins, *ibid.*, 478.
MESA APIDI. Roman-Byzantine site, *ibid.*, 480.
DIKTYNNAION. Foundations of Roman temple excavated by Welter in 1943; *AA* 1943, 334 ff.
Map 23 and p. 373
SKHOINEAS, Mirabello. Add Roman vases and lamps found at Rousampelos in 1939, *E.E.K.Σ.*, iii, 491.
Map 23 and p. 375
ZAROS. Add Roman aqueduct and Latin inscription, *ibid.*, ii, 536.
Map 23 and p. 376
OLOUS. Add Roman tombs and a funeral stele found in 1940, *ibid.*, iv, 274.
Map 24 and p. 377 (uncertain post-Minoan)
KEFALA near Tripiti (Poikilassos). Graves reported by Emmanuel Paterakis.

T. J. DUNBABIN.

THE ANCIENT DOCKS ON THE PROMONTORY OF SUNION.

(PLATES 31-34)

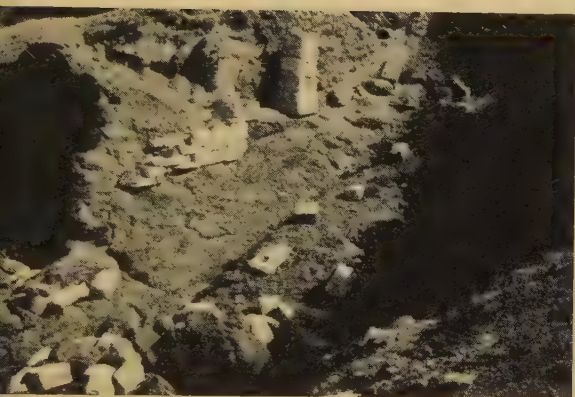
IN the definitive publication of the Sunion site by Stais in *Ἀρχαιολογικὴ Ἐφημερίς* 1917, 168 ff., and again in *τὸ Σούνιον*, scant reference is made to the remains of docks and shipsheds on the promontory. They are dismissed with a few words in the text, and indicated in the most summary fashion on the plan drawn by Orlandos. This is not altogether surprising in view of the overshadowing interest of the temples and fortifications. It might have been supposed, however, that a full treatment of the walls and defences of the site would include some descriptions of the docks, and some attempt to fit them into the chronology of the fortress.

It occurred to the writer in the early spring of 1935 to attempt in some measure to supply this deficiency. In the course of a series of visits to Sunion a detailed survey was made of the shipsheds and of the fortification walls in their immediate vicinity (Pl. 31). The remains of the shipsheds consist of a deep rectangular cutting 20.50 m. long by 11.55 m. wide, which is 3.90 m. deep at the end furthest from the sea. The floor of the cutting slopes at an angle of $15^{\circ} 50'$ towards the sea (Fig. 1a). Two slipways each 2.60 m. wide at the rock surface, stepped and sloped to 1.15 m. wide at the bottom, run from a point 6 m. 50 from the inner end of the main cutting for 21 metres towards and into the sea. The total depth of the slipways is 1.25 m. Part of the north face of the dock chamber exhibits, recessed level with the rock, a wall of white marble (Pl. 33 and Fig. 1d). This is of anisodomic construction, built in two sections with a gap between them. The material is the marble from Agrileza which supplied the temple builders. The blocks are large and well cut, though the angles are much blunted by the salt spray blown in by the west wind—‘*aestus ab undis / aequoris exesor moerorum litora propter*’, as Lucretius says.

The south side of the chamber shows a footing for a similar wall, but no stone of it remains. A single rectangular monolith of limestone (seen at the right of Fig. 1b) stands near the head of the northern slipway. It is broken in two, and its upper part lies to hand: it measures 0.50 m. east and west, by 0.60 m. north and south, and before it was broken stood 2.25 m. high. This was probably intended as a bollard for making fast ships hauled up the slipway. A great deal of soil and débris has fallen into the dock chamber from the south-east corner, and has obscured the head of the southern slipway. The origin



a, The Northern Slipway.



b, The North Wall and Slipway.



c, The Slipways from the South.



d and *e*, The North Wall: in foreground the Gable Block.

FIG. 1.—ANCIENT DOCKS AT SUNION.

of this débris is the excavators' dump from the houses within the fort and from the temple. It contains many fragments of pottery, from the classical to the Roman period.

The upper section of the northern marble wall consists of a pier 1.20 m. wide, the lower side of which is 11.45 m. from the north-east corner of the dock chamber. At the corresponding point on the south side of the chamber there begins a ledge at a height of 3.60 m. above the floor at that point. This ledge continues on a level to the south-east corner of the main cutting. It is 0.60 m. wide, and towards its inner end bears two courses of marble blocks, the total height of which is only 1.00 m. The rock on this side is much softer than that on the north, and has crumbled away a good deal above the level of the ledge.

With the exception of a number of marble blocks lying on the floor there are no other architectural remains within the dock chamber.

The cuttings in the floor of the chamber which form the actual slipways are intended to take, in the first shallow ledge on each side, longitudinal wooden runners, and in the bottom of the cut, a row of keel blocks. The ledges for the runners stop at the entrance of the dock chamber, but the deep cuts continue about 6 metres into the sea to enable vessels to be drawn up without running their keels aground. The slope of these slipways is extremely steep, being of the order of 1 in $3\frac{1}{2}$. The slipways in the harbour of Zea show a slope, according to Graser (*Philologus* xxxi, 1872, 20), of 1 in 9—a little over 6° , as compared with $15^\circ 50'$ here. Sufficient explanation of this is provided by the fact that at Zea the slipways had to hold full-sized triremes, whereas at Sunion only light vessels were to be accommodated. The bronze ratchet-wheel figured by Stais 'Αρχ. Έφ. 1900, 136 (with no clue to its size) may be part of a winch used for hauling up ships rather than for hauling up corn from the store, as Stais suggests.

Above and to the east, inland from the shipsheds, is a wall which runs roughly north and south, not quite parallel with the end of the cutting (Pl. 31). It is part of the fifth century enceinte wall which ran round the headland: Thuc. viii, 4 (413–12 B.C.): Σούνιον τειχίσαντες, ὅπως αὐτοῖς ἀσφάλεια ταῖς σιταγωγοῖς ναυσὶν εἴη τοῦ περιπλοῦ. This wall is terminated to the north by a rectangular tower, of which the foundations alone can be seen. Of the wall from two to three courses still remain, and the foundations are twice as wide as the wall, which is one block thick only, of 0.46 m. It will be seen from the plan that this wall, which is cut near the north-east corner of the shipsheds by the great Hellenistic marble wall, is parallel with the side of the tower, yet not perfectly aligned with it, a fact which Stais and Orlandos saw fit to gloss over. The wall is also less thick than the side of the tower. It looks as if the tower

may have been built as an afterthought. In any case, neither the wall nor the tower has any relation with the shipsheds, which were not built until Hellenistic times. The proofs of this are several: the shipsheds are outside the fifth century wall; the wall which encloses them to the north is the Hellenistic wall of marble: the walls within the cutting are of Hellenistic technique, and are moreover built of marble, like the Hellenistic enceinte wall, whereas the fifth-century walls and towers are all of poros or sandstone.

The arrangement by which these shipsheds are included within the north wall is closely paralleled in the docks at Oiniadai. There a basin with docks to hold seven vessels cut in the rock lies immediately within the city wall. (Heuzey, *Le Mont Olympe et l'Acarnanie*, p. 448, plan p. 435).¹

The dating of various parts of the fortifications at Sunion is clearly worked out by W. Wrede in *Attische Mauern*, 10 ff. and 38, figs. 106 and 107. The earliest walls are built of poros alone: the next period is marked by the use of a kind of conglomerate resembling sandstone (sandsteinartige Konglomerat, Wrede, p. 11). This material was used for the old propylon of the temenos. The last period, to which our shipsheds and the so-called magazine belong, exhibits the use of marble, mixed with blocks of conglomerate. This style, which falls within the third century, shows in no uncertain way the influence of the Hellenistic East on the native Attic mason's craft. The marble blocks are of great size, but the courses are uneven and broken. The Hellenistic commanders with their ideas of royal magnificence could order a great wall to be built of the most expensive materials available, but they could not overshadow the craft of the masons who built their wall.

There seems to be no evidence that Sunion was fortified before the winter of 413-12 B.C., when, as Thuc. viii, 4 says, it was fortified in order to secure to the Athenian corn ships a safe passage round the Cape. Sunion, ἱπὸν . . . ἄκρον Ἀθηνέων, had not before been a strategic point. It was only rendered one when the Lacedaemonian fortification of Dekeleia cut off the overland corn route via Oropos. There is no reason to suppose that Sunion had walls at the time of the war of the Athenians with the Aeginetans. The Athenians at that time used to celebrate a five-yearly festival (πεντετηρίς) there; Herod. vi, 87. During the war they settled some Aeginetan political exiles in Sunion, who used it as a base from which to raid Aegina (Herod. vi, 90). These men were not in possession long enough to warrant the building of a wall: Herodotus gives no hint of any existing fortifications, and Thucydides speaks as if Sunion had been walled for the first time in 413-12 B.C. In *Eph. Arch.* 1917, 172 ff. Stais chooses, in the face of Thucydides, to place part of the

¹ Cf. Cavallari and Holm, *Top. Siracusa*, p. 30; Thuc. vii, 22 and 25; Diod. xiv, 42, νεωσοίκους πολυτελεῖς . . . τοὺς πλείστους δύο ναῦς δεχομένους; Xen. *Hell.* IV, iv, 12.

fortifications in the sixth century. All the rest, including the Hellenistic marble wall, he ascribes without hesitation to 413-12. Orlandos' plan confuses the issue by inaccuracy of survey and lack of correct distinction between marble and other materials: conglomerate he omits to mention.

In order to understand more clearly the problem of the date of the Hellenistic wall and of the shipsheds, it is as well to consider briefly the history of Athens during the middle of the third century. In the year 262 B.C. the unsuccessful issue of the Chremonidean war left Athens in the hands of Antigonos Gonatas. She remained a subject state of Macedon until the death of Demetrios II in 229. In that year Eurykleidas of Kephissia, who was the leading Athenian statesman at that time, obtained the independence of the city. Aratos thereupon attempted to induce Athens to join the Achaean League, but she would have none of it. Eurykleidas was at that time engaged in negotiating with Diogenes, the Macedonian commander of the forts of Piraeus, Munykhia, Salamis and Sunion, for the return of these places to Athens. Diogenes demanded 150 talents, which the city of Athens was hard put to it to raise. Aratos, by way of amends for his depredations in Attica, subscribed a sixth of the sum, and according to Paus. ii, 8, 6, actually arranged for the evacuation of the forts, which was completed by 228.

We may suppose, then, either (1) that the Hellenistic wall was built by Athens immediately before or during the Chremonidean war, or (2) more probably, that the wall was built after 263 by the Macedonians, with marble, and repaired, after 228, by the Athenians, with the less expensive local conglomerate. It is most unlikely that the Athenians could have afforded to build the marble wall at the time of the Chremonidean war. Repairs to the 'magazine' carried out with sandstone-conglomerate may be referred to the period soon after 228, and Stais' inscription no. 2, *Eph. Arch.* 1900, 135, may be regarded as a record of this work, although there is no evidence of the date of the inscription:

τά τε σιτοβολεῖα ἐπισκευα[σθῆναι λίθῳ ἐπ]ιχωρίῳ

The reconstruction of the buildings associated with these shipsheds is rendered difficult both by the paucity of architectural remains and by the crumbling of the rock on which the buildings once stood. To the north of the slipways the ground is undermined by a cave, which has a second natural entrance, and also access by a circular shaft to the surface, farther to the east. The roof of this cave has fallen in over the entrance adjacent to the slipways, taking with it the whole terminal tower of the Hellenistic wall. Worked stones may be seen in the water, but not a stone of the tower remains in place. The great quantity of the stone from the tower, together with not

a little of the temple, has probably been carried off by ships calling at Cape Colonnae for ballast. Large ships took in lead ore or slag for this purpose at Ergasteria, Port Arthur, or Pasha Limani, but smaller boats often took in ancient stone and marble at the Cape. Not only was the stone ready cut to their hand, but the gleaming Agrileza marble would fetch a price when they got it home.

Fortunately, however, the Earth-shaker and his Christian servants have left us one gable block which not only shows us that the shipsheds had a gable roof, but gives us the slope of it. That is one step forward: but an inclined gable roof 21 metres long would set up a great thrust in the direction of its lower end, and there is no trace of any provision to take such a thrust. The roof must therefore have been in two parts, stepped one above the other, and each one horizontal. Examination of the proportions of the building confirms this conclusion. If a horizontal line be drawn from the rock surface at the inner end of the dock cutting to a point vertically above the lower side of the pier in the north wall, and a second horizontal line from a point vertically above the upper side of the pier to a point vertically above the lower end of the wider cutting of the slips, it will be found that these two lines are of the same length (Pl. 32).

Further, if the height of the seaward end of the first line above the floor of the dock chamber be taken, and the second line be drawn with its seaward end at the same height above the floor, it will be found that the height of its inner end corresponds exactly with the depth of the main cutting at its east end. Thus we are given the lengths and levels of the two sections of the roof. The slope is given by the measurements of the gable block to be 31° . The length of each section is 10.80 m. Owing to the fact that the sides are supported by rock, there is no need for any collar beams, so that the whole space under the rafters is clear for a minimum height of 10 m. at the ridge. No timbers are called for longer than 8.50 m.

Knowing the height of the springing of the lower section of gable, we are enabled to restore the walls on the north to their full height, and as a natural consequence the lower wall on the south (Pl. 34).

The restoration of the upper section of the roof is less straightforward. We have the footing and a few courses of the wall supporting its southern side. This is the ledge referred to on p. 196. The wall may be restored as far as the ground level at the eastern end of the cutting. We are then given a width for the upper roof greater than that of the lower by a little over three metres. On the north side nothing remains, at ground level, save the foundations of the Hellenistic enceinte wall, which can be seen where the ground has not collapsed. The roof on this side must have been supported by the enceinte

wall itself. According to the angles and widths deduced, the roof would strike the wall at a height of 1.30 m. above ground level (Pl. 34).

The gap between the two sections of the lower wall on the north side led to a rock-cut stairway, traces of which can still be seen, giving access to the dock from the tower at the end of the Hellenistic wall.

Note.

A short distance round the coast north of the shipsheds, about half-way to the "customs-house" on the harbour, there is a small rock-cut slipway.

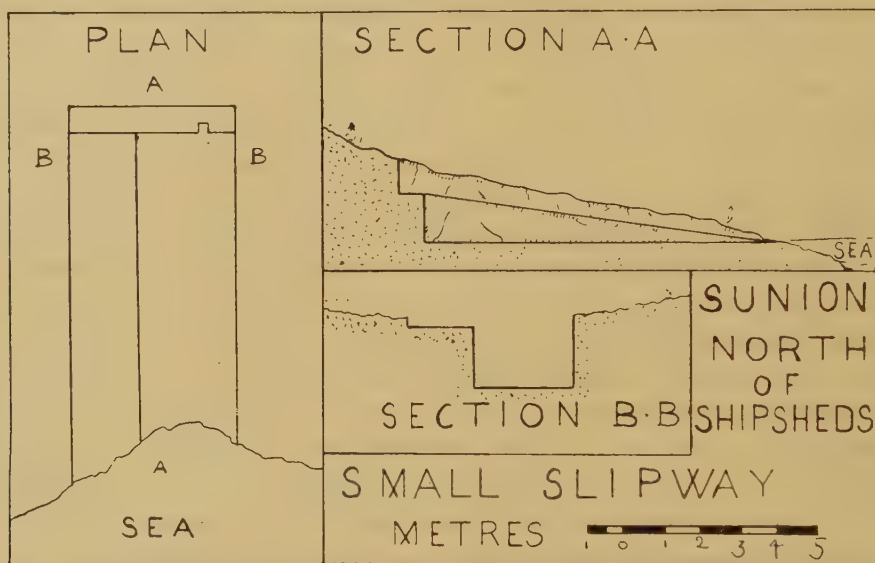


FIG. 2.—SMALL SLIPWAY NORTH OF SHIPSHEDS, SUNION.

It is 9.00 m. long, and is intended to hold a dinghy or suchlike craft. The shore at that point is steeply shelving and rocky. A boat not hauled up out of the water would certainly break up in the slightest wind. A sketch of this slipway is appended (Fig. 2).

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NOTES ON SOME PUBLISHED INSCRIPTIONS FROM ROMAN CYPRUS¹

IN their preface to Vol. X of the *Cambridge Ancient History*² the editors promise that in Vol. XI will be found a 'survey of the several provinces during the two centuries that end with the Antonines.' The student of Roman Cyprus cannot be advised to turn to this volume, because he will there find no mention of Cyprus whatsoever, even as a word in the index. This neglect—for such, indeed, it seems—is indicative not only of the quite literal insularity of this small and in general insignificant province, but also of a long-standing and unwarranted indifference to Cypriot epigraphy.³ Since the profitable visit of Waddington in 1862, few epigraphists have landed in Cyprus with any higher purpose than the enjoyment of a busman's holiday; and whereas prehistory, archaeology, sculpture, coinage and the literary sources have been the subject of specialised study, the historian of Cyprus under the Empire,⁴ when he takes up the only available collection of inscriptions for his period, that still indispensable work *Inscriptiones Graecae ad res Romanas pertinentes*, finds there sixty-nine inscriptions only, of which several have been poorly published and some again imperfectly edited. A substantial increase in our knowledge of Cyprus can best be looked for from a more systematic study of its epigraphy. Between 1935 and 1939 I visited Cyprus annually, to make a considerable collection of squeezes; but only recently have I had the leisure to consider those of the Roman period. In this article I revise certain published inscriptions of the Empire, most of them included in *IGR*, so as to clear the way for the unpublished texts, of which some 50 may prove to be at least of local interest.

(1) The 'Sergius Paulus' Inscription, from Soli, now in the Cyprus Museum: *IGR* iii, 930 (L. P. di Cesnola, *Cyprus*, 1877, p. 424, no. 29, from the

¹ I am happy to acknowledge the encouragement and helpful criticism which this article has had from my colleagues, Professors R. M. Henry and H. J. Rose. It has, further, had the inestimable advantage of revision by Mr. M. N. Tod. But the faults which still remain are my own. I use the following abbreviations additional to those commonly found in *BSA*:

IGR = *Cagnat, Inscriptiones Graecae ad res Romanas pertinentes*.

LBW = *Le Bas et Waddington, Voyage archéologique*.

² *CAH* x, Preface, p. ix.

³ Cyprus is not mentioned, *pace* Hondius, *Saxa Loquuntur*, p. 81, in the prospectus of *IG*; and Mr. Tod assures me that he knows nothing of an *IG* xv to be devoted to Cyprus. And yet Cypriot epigraphy of the Classical and Hellenistic periods has an interest

which is more than local. Again, despite the enthusiasm which the deciphering of the Syllabary in 1871 excited, leading to the inclusion by Deecke of all the syllabic texts then known in *SGDI* i (1883), these inscriptions have during the last sixty years, save for the researches of R. Meister (interrupted however by his untimely death in 1912) received but casual attention. Indeed, it is quite characteristic that a recent and valuable work by Avi-Yonah, *Abbreviations in Greek Inscriptions* (*The Near East*, 200 B.C. to A.D. 1100), though otherwise exhaustive, does not and perhaps cannot make any use of Cypriot material.

⁴ Cf. 'The Roman Province,' pp. 226–56, in Sir George Hill's *History of Cyprus*, a work which is already a classic. This chapter supersedes V. Chapot, *Les Romains et Chypre*, in *Mélanges Cagnat*, 1912, 59–83. For the bibliography, cf. Hill, *o.c.*, 226, n. 1.

copy of Dem. Pieridis). Republished by Hogarth, *Devia Cypria* (1889), 114, no. 36. Cf. *PIR* iii, 221, no. 376; *RE* ii A, 1717; Westholm, *Temples of Soli* (1936), 21, 22 (*Swedish Cyprus Expedition* iii, 410, 411); Hill, *History of Cyprus* (1940), p. 240 and p. 255, no. 12; A. H. M. Jones, *The Greek City* (1940), 171.

With the exception of Pieridis' reading of l. 1 (lost when the stone was cut down, possibly to fit the threshold where Hogarth found it), the *IGR* text is superseded by Hogarth's. With this I find myself in sufficient disagreement to justify perhaps a fresh treatment of the inscription *ab initio*. The text here offered is based on squeezes both of the stone and of a plaster-cast, also in the Cyprus Museum, taken presumably before the removal of the original to Nicosia.

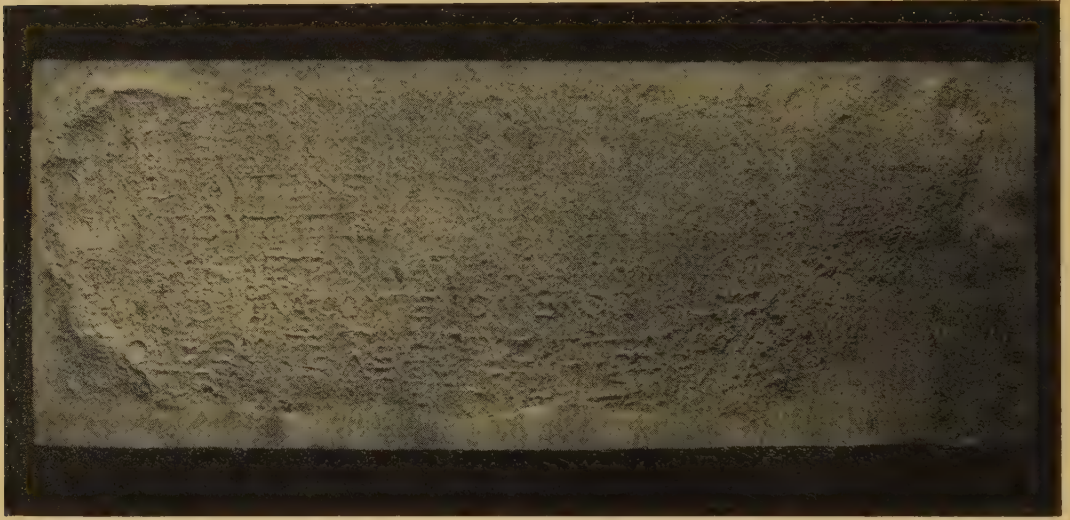


FIG. 1.—*IGR* iii, 930.

- (squeeze) ('Απολλώνιος τῷ πατ[ρι τῷ δεῖνι τοῦ δεῖνος])
καὶ τῇ μητρὶ Ἀρι[στ]οκ[λεία?] Ἀπ[ολλωνίου?] ἔκτισεν?)
τὸν περίβολον καὶ τὴν κατ' [αὐτοῦ καμάραν? κατὰ] τὰς
ὑμῶν αὐτῶν ἐντολὰς, ἑαυ[τῷ τε καὶ] τοῖς παῖ[σιν]
5 ἑαυτοῦ, τῆς Σολίων πόλεως [ἀρχιερα]σ[άμενος?, ἱπ]-
παρχήσας, γραμματεύσας δεκαπρωτε[ύ]σ[ας, ἐπὶ τοῦ]
βυβλιοφυλακίου γενόμενος· L ιγ'? Δημ[αρχε]-
ξουσίου κε'.
τιμητεύσας, τὴν βουλὴν [κατα]-
10 λέξας, τῷ ι' L ἐπὶ Παύλου [ἀνθυ]-
πάτου.

Found by Cesnola in a 'circular edifice . . . near Karavostasi.' For its subsequent misfortunes, cf. Hogarth, *l.c.* Removed to Nicosia after 1894, the date of the *Cyprus Museum Catalogue* of Myres and Richter; and probably before 1909, when the copious correspondence preserved in the Museum files begins. A block of local white marble; h. 0.295, w. 0.674, th. 0.21 m.; complete save for the groove, 0.05 m. in height, cut along the top of the stone, which removes the original first line. Letters from 0.014 to 0.02 m. in height.

L. 2: these names, though conforming to certain faint traces, are rather restoration than reading.

L. 5: [ἀρχιερα]σ[άμενος] in place of Hogarth's [ἀγορα]νο[μήσας]. What Hogarth took for *omicron* is (unlike his *nu*) clearly discernible; but the letter is fully rectangular and should be taken as *sigma*. [ἀρχιερα]σ[άμενος] is of the right length; nor, save for *chi* (where from the stone *kappa* is easier), does it clash with the vague markings which alone remain.

L. 7: it is unfortunate that the date, accurately shown by Pieridis in Cesnola's version, but not recognised as such, is so thoroughly ambiguous. The easiest reading is certainly the ΛΥ' of Hogarth;⁵ but the first figure may well be a casual mark, while under the horizontal of *gamma* appears a parallel stroke suggesting *digamma*. Thus ΛΥ', ΛΞ' and ΛΙΞ' are possible alternatives.

Lines 9 to 11 are a later addition, inscribed after the block had been incorporated in the monument it concerns—as their uneven lineation indicates; and possibly by another hand, since they have certain distinct differences in letter forms.⁶ Whether they include an omission from the inscription as originally drafted, or record an office held subsequently by Apollonios will depend on the view taken of the date in l. 7.

Apollonios built an enclosure⁷ and, it would seem, the tomb⁸ which it

⁵ But Hogarth, *o.c.*, 115, regretted that the 'third and most important letter in the date was hopelessly lost.' He adds, 'If this was, as I believe, P, then reckoning from the establishment of the province we get A.D. 55 for the date of the inscription.' There is no third letter in the date. Cf. further, note 16 below. In addition to Hogarth's version of the present inscription, three other inscriptions in *Devia Cypria* could with profit have been included in *IGR*. These are: p. 8, no. 1; p. 63, no. 15 and p. 109, no. 28 (below, note 118). Cagnat's neglect of *Devia Cypria* is the more surprising when we find in *IGR* iii, 936 a milestone originally published by Hogarth (*D.C.*, p. 112, no. 34) cited from *CIL* (iii, 12111).

⁶ Notably in xi, which in the main text is Ξ, in the appendix 2.

⁷ Whether the 'circular edifice' in which Cesnola states he found the inscription is the περίβολος of the text, is open to question. Hogarth makes no mention of it. The Swedish excavators could discover no trace of this building, but the reason for their failure is not far to seek. In the Cyprus Museum files (*C.M. Files* 36, pp. 24, 25) is a MS. report by the late G. Jeffery,

the well-known architect, dated September 21, 1912, in which he describes the looting of the Soli site for stone by contract. The Public Works Department 'also looted for stone to build a bridge.' In 1910 one temple was ravaged 'for the culverts of a road.' Jeffery adds that 'on the right of the road from Morphou there was still a dim trace of the circular temple with adytum or oracular cave beneath it, referred to by Cesnola.' On p. 24 he gives a plan of the site, showing the 'circular temple' lying to the N. of the main road, opposite the harbour and below the theatre. If this 'circular temple' is the περίβολος, the 'adytum or oracular cave beneath it' is probably the family tomb of Apollonios.

⁸ What is essential is, not the περίβολος, but the object it encloses. This, as the privacy which the περίβολος implies would itself suggest, is regularly a tomb: *MAMA* iv, no. 85:—τὸ π. καὶ τὸ ἐν αὐτῷ εἰσένεκτον; *MAMA* vi, no. 358:—τὸν βωμὸν καὶ τὴν κατ' αὐτοῦ σορὸν σὺν τῷ π.; *SEG* vi, 1932, no. 676:—τὸ ἀνγείον καὶ τὸν π. Καμάραν is here preferred, though new to Cyprus, since it can denote the vaulted, rock-cut tomb that is characteristic of Cypriot burial.

surrounded for his parents, for himself and for his children, thus conforming with his parents' injunction (ὑμῶν αὐτῶν for αὐτῶν). And he took the opportunity of detailing his own civic distinctions. In l. 5–6 [ἰπ]παρχήσας is restored for Hogarth's [ἐ]παρχήσας, which, quite apart from the unnatural word division, seems meaningless in a municipal *cursus honorum*. The ἱππαρχία⁹ has hitherto in Cyprus occurred only in Citium, where the captaincy of the local police force seems, for reasons which escape us, to have been an office of unusual importance. It thus stands not improperly at the head of Apollonios' career, given in descending order. If we are right in restoring in l. 5 [ἀρχιερα]σ[άμενος], it is as correctly preceded by the High Priesthood, which in our context is presumably that of the imperial cult in Soli.¹⁰ As Apollonios' first charge was that of the local Record Office,¹¹ it is appropriate that his last (for such, setting aside his priesthood, it probably was, whatever view be taken of the date in l. 7) should be the censorship.¹² Here Apollonios tells us that he served as censor and, presumably in this capacity, brought the Senate up to strength, doubtless by admitting those who in the course of the preceding *quinquennium* had qualified themselves by the holding of a local magistracy. For the restoration [κατα]λέξας seems to impose itself and can be adequately defended.¹³

That a man should construct a tomb for his parents and then specify that it is a family tomb, for the use of himself and his children, is a proceeding too common to require comment. What is remarkable in the present case is the employment of the second person in ὑμῶν αὐτῶν, which I understand, with Hogarth, to refer to the parents.

⁹ On the civic police of the Roman period, L. Robert, *Études anatoliennes*, 96–110. Further, A. H. M. Jones, *The Greek City*, 212–13. The ἱππαρχία, originally military, survived under the Empire in various Asiatic cities; where no doubt, as at Smyrna, it sank to the captaincy of the city police (Jones). At Cyzicus, however, throughout much of the history of that city the ἱππαρχία supplied the eponym of the year (F. W. Hasluck, *Cyzicus* (1910), 304–5). The Cypriot instances are: *JHS* xii (1891), 332 (from Larnaca, now lost)—[Γάϊον] Ἰούλιον Ἰουλ[ί]ου Π[υθ]άρχου υἱ[ο]ν? Φλαυιανὸν | ἱππαρχὸν | [Γάϊος] Ἰούλιος Φλαυιανὸς Μνασέας | τὸν ἀδελφόν and two unpublished inscriptions of similar provenance. In one of these (where, however, the reading is conjectural) the ἱππαρχία may occupy a position of remarkable prominence.

¹⁰ For ἀρχιερασάμενος used without further qualification of the imperial cult, cf. *IGR* iii, 981 from Citium: ἀρχιερά τῆς νήσου (where τὸν Σεβαστῶν is clearly to be supplied). Possibly also *LBW* 2759 from Salamis: ἀρχιερασάμενος. That individual cities also had such High Priests is demonstrated for Lapethus by *IGR* iii, 933; for Salamis, by *ib.* 961 (not Palaepaphus as *IGR*, the provenance being the Kouklia in the Mesoria); for Citium, by *Trans. Soc. Bibl. Arch.* iv (1876), 42 (where I restore [ἀρ]χιερέα τῶ[ν] Σεβαστῶν κα[ὶ] τῆς Πρώμης?).

¹¹ Not, *pace* Hill, *o.c.*, 240 a 'public library.' While βιβλιοθήκη occurs freely in the sense of record office

(e.g., *Sammelbuch gr. Urkunden aus Aegypten* iv, 7404), βιβλιοφυλάκιον is nearly always so used (for refs. *SB* ii, p. 335). *A priori*, it is highly unlikely that a city so obscure as Soli should boast a public library, even as an adjunct to its gymnasium; cf. Poland, *Öffentliche Bibliotheken in Griechenland u. Kleinasien*.

¹² Cf. the interesting remarks of A. H. M. Jones, *The Greek City*, 171, on municipal censors in the Eastern provinces. Jones, however, argues that the Romanisation of the local councils in Cyprus—a deduction from the presence of *τιμητεύσας* in the present inscription (which he wrongly ascribes to Citium)—is the handiwork of Cato; who for his model took the constitutional changes which Pompey had instituted in Bithynia. This argument, which would be the better for a little evidence, does not take into account the fact that Cyprus under the Republic was not a province but an annexe of Cilicia. Cato's activities, from all we hear of them, were rather financial than constitutional; and for any constitutional changes in the status of the Cypriot βουλή I would prefer to look to the lost edict of the unknown governor of Cilicia in 58 B.C. Furthermore, from 48 to 30 B.C. Cyprus was restored to a Ptolemaic rule which, from the existence of coinage struck by Cleopatra for the island (Hill, *o.c.*, 210), seems to have been effective enough. Finally, Augustus sent Paquius Scaeva to Cyprus for a second and extraordinary proconsulship expressly *ad componendum statum in reliquum provinciae Cypri* (*CIL* ix, 2845); and whatever else this phrase may mean, it can presumably cover such changes as are here in question.

¹³ *Plut. Pomp.* 13: κ. εἰς τὴν σύγκλητον; *Ann. Epigr.*, 1905, 120: ἀγορανόμον καταλεγέντα = *adlectum inter aedilicios*.

The interest long shown in this inscription is, however, due to its mention of a proconsul Paulus, who has been thought by some to be the Sergius Paulus of the Acts of the Apostles.¹⁴ The visit of St. Paul to Cyprus falls between A.D. 45 and 50.¹⁵ The new reading in l. 10 places this proconsulship in the regnal year 10;¹⁶ and this, if the reign be that of Claudius, is A.D. 50. Whether such a dating for the celebrated encounter with Sergius Paulus, usually set between the years 46 and 48, could be readily reconciled with the chronology of the Acts, is perhaps for others to decide. I will here content myself with pointing out that on epigraphic grounds the inscription, while it cannot be earlier, is in all probability considerably later. Our knowledge of the proconsular fasti of Cyprus is so fragmentary that no other proconsul is known who held office in a tenth year; and hence no subsequent reign can be eliminated on this score. Such internal evidence as the absence of the *iota* adscript¹⁷ and the fact that Apollonios does not enjoy the *civitas*¹⁸ is equally inconclusive. But, against this, it is hard to reconcile the presence of the square alphabet, as well developed as we find it here, with the middle of the first century;¹⁹ and, secondly, if our inscription falls in the year 50, it supplies the earliest known instance of the δεκαπρωτεία:²⁰ that an island always

¹⁴ Acts xiii, 4-13. Hogarth stoutly supports the identification; but no other authority is prepared to commit himself.

¹⁵ These are the extreme limits in time for St. Paul's celebrated encounter at Paphos. Hill, *o.c.*, 247 sets the landing of the Apostle at Salamis in A.D. 45; the proconsulship of Sergius Paulus 'about 46-48' (*o.c.*, 255, no. 12).

¹⁶ In a forthcoming article I show that the only system of dating, in the proper sense of this term, current in Cyprus between 30 B.C. and the reforms of Diocletian, was regnal. One exception only is known to me, the 'new sacred year,' a short-lived era, attested by coins for the years 76-7 to 78-9 (Hill, *o.c.*, 234-5). Cf. Dittenberger, *OGIS* 582, n. 2; Hill, *o.c.*, 235.

¹⁷ In datable inscriptions of the Principate, the status of *iota* adscript is as follows:

under Augustus	present 3	absent 2
Tiberius	3	0
Gaius	1	0
Claudius	2	1
Nero	0	1
Titus	2 (one mixed)	0
Domitian	0	1

Thus in the first century *iota* adscript was freely but capriciously used. There is a tendency for it to become rarer as the century advances; but it shows a certain persistence with religious formulae (such as the dedications to Aphrodite of Paphos).

For the second century, when it is becoming an anachronism, I note 5 instances: under Trajan; under Hadrian or the Antonines (twice, but once with ἀφροδίτῃ τύχῃ only); under Pius (with Aphrodite, but omitted with the titles of the emperor which follow)

and under Marcus. In the third, it is an archaism, found once in the reign of Alexander Severus(?).

¹⁸ At no period during the first two centuries was the *civitas* common with native Cypriots outside Paphos (notably among the priestly families), Citium (magistrates and priests of the emperor-cult) and Salamis. At Soli [ταμί]α ἀρχαντες, under Marcus are not *cives* (*IGR* iii, 929). At Lapethus, neither Adrastus, son of Adrastus, who dedicated to Tiberius a statue and a shrine (*IGR* iii, 933) nor his grandson (or great grandson) under Trajan (unpublished) were Roman citizens. So, too, with Sosos, son of Sosos, of Salamis (*CIG* 2639; from its lettering, of the second century) and Sodamos, son of Sodamos, of Citium (*LBW* 2735), although both men had distinguished municipal careers.

¹⁹ For this alphabet, cf. Bradford Welles, *Gerasa, City of the Decapolis: Inscriptions*, pp. 358-60. It was in common use at Jerash in the first century, is apparently of Syrian origin, and is found in its purest form at Dura-Europos and at Susa. In Cyprus its status is uncertain. Taking *sigma* formed from three sides of a rectangle as the essential characteristic (although this form occurs once in what is apparently a late Ptolemaic context), I find some seven datable examples. These range from the last years of Augustus (1) and the reign of Gaius (1) to Hadrian or the Antonines (2), Pius (1) and Septimius Severus (2). Of these seven, however, only two have three or more square letters, and both are Septimian. The present inscription, an excellent example of this alphabet, outdoes all the above in having a square inverted *omega*; while *omicron* is transitional, being in certain cases distinctly angular. For the lunar and classical alphabets, cf. note 85 below.

²⁰ In the early imperial inscriptions of the E. δεκάπρωτοι never appear. *IGR* iii, 1376 from Gerasa,

remarkable for its conservatism should be responsible for such an innovation is highly improbable. The problem is further complicated by an inscription from Kythrea of the Julio-Claudian period, which raises the possibility that a Sergius Paulus, with however the praenomen Quintus, was proconsul of Cyprus.²¹ Into these complications I will not enter now. For our present purpose, it will be sufficient to state that *IGR* iii, 930 appears to be considerably later than the reign of Claudius; and that it records the proconsulship of a Paulus whose praenomen and gentilicium are not known.²²

(2) A Portico dedicated to Zeus Labranios: *IGR* iii, 931 (Sakellarios, Τὰ Κυπριακά (1854), 209; *LBW* 2836a).

The *IGR* text rests, not (as we are led to suppose) on the unrivalled authority of Waddington, but on a hand-copy taken by Sakellarios over 90 years ago. This is so inadequate that republication is necessary.

(squeeze) (leaf) Ἐπ' ἀγαθοῖς (sic).
 L ιβ' Αὐτοκράτορος Ἀντωνεῖνο[υ Σεβ]-
 αστοῦ Κομόδου, Διῖ Λαβρανίω Φιλ[ων]
 Φιλοκράτους νεώτερος, κνείσευτ[ήρ]
 5 Θεῶν Οὐρανίων καὶ Διὸς Λαβρα[νίου],
 τὰς στοὰς εὐξάμενος.

Said by Sakellarios to have been found by treasure-seekers at Khandria. Re-examined on July 4, 1938, some half a mile to the N.E. of this village, lying at the edge of a vineyard, immediately below the crest of the ridge which

now dated to A.D. 66 (McCown, *TAPA* 64 (1933), 79) supplies the earliest instance; though it may be doubted whether δεκάπρωτος here bears any further significance than Josephus' (apparently honorific) τοὺς τῆς βουλῆς πρῶτους δέκα of Tiberias (*Vita* 13, 68 ff.). For the first occurrences in a true Greek environment, we must turn to Lycia during and after the reign of Hadrian; while the bulk of the epigraphic testimony belongs to the end of the second and to the third centuries. In origin the δεκάπρωτοι are generally admitted to have been a finance committee of the local council; but their chief function soon became the collection of taxes for the central government. The definitive study is that of E. G. Turner, *JEA* xxii (1936), 7-19, Δεκάπρωτοι. Cf. further Rostovtzeff, *Social and Economic History of the Roman Empire*, 358, 594⁴⁶, 601¹⁸. Other Cypriot instances are: *CIG* 2639 from Salamis (from its lettering, of the second century) and an unpublished inscription of unknown provenance, of which the relatively late date is apparently betrayed by its use of ligatures.

²¹ *IGR* iii, 935 (Cesnola, *o.c.*, 417, no. 11) = Myres, *Handbook of the Cesnola Collection* (1914), 319, no. 1903 and p. 548. Myres' version, which consigns the *IGR* text to an epigraphic limbo, for the last three lines

reads: - - Κλαυδίου Καίσαρος Σεβαστοῦ καὶ | [- - - ἐπὶ Κ]οίντου Σεργ[ίου Πάυλου ἀνθυπάτου]. It may be noted that of the emperor's name enough survives to make it certain that we are here concerned with one of the Julio-Claudians; while at the end the restored cognomen followed by ἀνθυπάτου is at least plausible.

The corrected version of *IGR* iii, 970 from Curium is also given by the *Handbook* (p. 548, no. 1904). Of this the first line should read: [Κουρ]ιέων ἡ βουλὴ [καὶ ὁ δῆμος].

²² The Sergii Pauli retained their *nobilitas* late into the second century, as is demonstrated by the L. Sergius Paulus (*PIR*¹ iii, p. 221, no. 377) who under Marcus was proconsul of Asia. That the cognomen Paulus, however, was common to various *gentes* of senatorial rank, such as the Aemilii, Servilii, Statii, Vettii, etc., hardly calls for mention. In passing, it may be noted that it is far from certain that the Sergius Paulus of the Acts bore the praenomen Lucius. One L. Sergius Paulus was under Claudius *curator alvei Tiberis* and therefore an ex-consul (Dessau, 5926). That he is to be identified with the proconsul of Cyprus is at best a conjecture, now somewhat weakened by Myres' reading of *IGR* iii, 935.

runs down from the peak of Adelphi. The inscription is thus very near the 5000 ft. contour. About 50 yards above, on the actual crest of the ridge, is a stack of boulders, some of them roughly worked, with fragments of red roof-tiles and potsherds. As the crow flies Khandria is some 16 miles W.S.W. of the site of Tamassus, 16½ miles S.E. of Soli; and, from this ridge above it, commands an unbroken panorama of the whole Mesoria.



FIG. 2.—IGR iii, 931 (VILLAGE OF KHANDRIA IN BACKGROUND).

An unworked slab of metamorphic limestone, dark in colour, its surface rusted. L. 1·36: h. (left) 0·395, h. (right) 0·295; th. (max.) 0·48 m. The inscription is complete save to the extreme right, where the ends of lines 2–5 are lost through disintegration of the surface. This, though rough, is elsewhere in good condition. Letters from 0·028 to 0·07; an excellent example of the lunar alphabet. To the left of lines 1 and 5 angles have been cut, to convey the appearance of a *tabula ansata*; for we may safely assume that similar marks to the right of the inscription have perished.

L. 1: no trace of lettering after *sigma*; but as the surface of the stone is here lost, this is not evidence that the line is complete. For $\epsilon\pi' \alpha\gamma\alpha\theta\iota\varsigma$ instead of $\epsilon\pi'$

ἀγαθῶ, there is to the best of my knowledge no parallel; I record what appears on the stone and express my surprise.

That the name of Commodus has escaped the erasure due to his *damnatio memoriae* is perhaps due to the remoteness of the locality. To this may also be ascribed the retention of Antoninus, officially discarded by Commodus in 190 in favour of the earlier Aurelius.

The worship of Zeus Labranios has hitherto been known only from Kastro, a conical hill half a mile S. of Phasoulla, a village 6 miles N. of Limassol. This is the provenance of the two inscriptions now in New York;²³ and here in 1937 and 1938 I found 6 ex-votos of a late date and very rustic style, to be published in a forthcoming article together with a further inscription from Khandria itself. For the epithet Labranios, cf. Cook, *Zeus* ii, 598 f. It is of interest to find that Zeus and the Heavenly Gods share their priest. His title κνείσειυτήρ is a ἀπαξ λεγόμενον. But compare Plutarch's ὑπεκκαύστρια for the priestess of Athena in the neighbouring Soli.²⁴

(3) A Descendant of Hortensius as Proconsul of Cyprus: *IGR* iii, 944 (*JHS* ix (1888), 251, no. 107b). Cf. *PIR*¹ ii, p. 148, no. 149; *RE* viii, 2469, no. 9. Further, Hogarth, *o.c.*, 117; Hill, *o.c.*, 255, no. 18.

An important inscription, still to be seen at Kouklia (Palaepaphus). It is cut on a pedestal which carried the statue, according to some, of Tiberius,²⁵ to others of Domitian.²⁶ To some in Q. Hortensius of the inscription we have two of the several names of a proconsul of Cyprus;²⁷ others find two separate persons, a Hortensius of unknown function and a proconsul whose name is lost.²⁸ No proper attempt has been made to assess the number of letters missing from each line, and these restorations are epigraphically unsound.

(squeeze) Ἄφρ[ο]δείτηι Παφία.

[Αὐτοκράτορα Καί]σαρα, Θεοῦ Σεβαστοῦ υἱόν,

[Τίτον Οὐεσπασιανόν]ν Σεβαστόν, ἀρχιερέα μέγιστον,

[e.g. καθιεροῦντος - c. 10 -]PKIOY, Κοίντου υἱοῦ, Κοίντου Ὀρτηνσίου

5 [τοῦ ῥήτορος(?) ἀπογόνου(?) - c. 3 -]ΤΗΣΕΙΝΟΥ ἀνθυπάτου,

[Φλαουία Κλαυδία(?) Σεβα]στή<ι> Πάφος.

²³ Myres, *Handbook*, pp. 322, 550, nos. 1914 and 1915—found but not published by Cesnola. During a brief visit to the Kastro site, Cesnola claims (*Cyprus*, p. 285) to have discovered on the summit the 'ruins of an elliptical structure measuring 27 feet by 16.' To-day of this only a heap of boulders is to be seen, though below it the slopes are littered with broken statues of life size, large stone basins, stone eagles, etc. For the possible equation of Zeus Labranios with the Ba'al of Lebanon of the eighth-century bronze bowls of Mouti Sinoas (some 7 miles to the E. of Phassoula)

cf. Hill, *o.c.*, 107; but it may be noted that the epigraphic evidence for Zeus Labranios in Cyprus is thoroughly late.

²⁴ Plutarch, *Mor.*, 292 A.

²⁵ Hogarth, *o.c.*, 117; Kadlec, in *RE* viii, 2469, no. 9 (1913).

²⁶ Dessau, *PIR* ii, p. 148, no. 149; Cagnat on *IGR* iii, 944; Hill, *o.c.*, 255, no. 18.

²⁷ So Dessau, *l.c.*

²⁸ So Kadlec, *l.c.*

Pedestal of pink marble, undamaged save for chipping at the edges; l. 0.72, h. 0.295, th. 0.705; palimpsest, with the Roman inscription so superimposed on a Hellenistic (*JHS* ix, 107a; *Mnemosyne*, vi (1938), 250, 117) that both read in the same direction and the four lines of the latter (which have not been defaced) have lines 2 to 5 of the former cut directly on to their lettering. The earlier inscription, which can be restored with certainty, shows that the original statue, that of Epiphanes, stood on a double pedestal, of which we have here but the right-hand half. The left margin of the Roman inscription must either have coincided with the left margin of the Hellenistic or lain still further to its left, since the stone-cutter would not tolerate the submerged text projecting to distract the eye. We can thus calculate the minimum number of letters lost in lines 2 to 5 of *IGR* iii, 944 (although in spacing and size of letter they show considerable variation), as c. 14, c. 16, c. 22 and c. 20. In l. 2 the restoration [Αὐτοκράτορα Καί]σαρα seems to impose itself and affords, incidentally, the correct number of letters for the minimum length of line; while l. 1 (which is complete) remains well balanced at the head of the inscription.

Dessau, in restoring to Domitian, remarks that the titles 'quadrant . . . vix in ullum alium imperatorem'. Domitian's name, however, is too short for the lacuna of l. 3; while the first extant letter of this line is clearly legible and shows no trace of the erasure normal with this emperor's name.²⁹ Any objections, moreover, that can be raised against a restoration to Titus will apply with no less force to Domitian; in particular, the designation of the deified Vespasian as Θεὸς Σεβαστός. This, though perhaps without parallel, is open to explanation. Vespasian after his death can be styled Θεὸς Οὐεσπασσιανὸς Σεβαστός.³⁰ In the present inscription the name Vespasian, being already in use with Titus, is the more easily omitted with his father.

Those, however, who consider that Θεὸς Σεβαστός can only refer to Augustus and would restore this inscription to Tiberius, have the following difficulties to face. (1) The name and titles of Tiberius cannot be reconciled with the lacunae of lines 2 and 3. (2) The lettering is definitely later than the reign of Tiberius. I have already expressed diffidence in using letter-forms as a criterion for dating (although this diffidence is more appropriate after the middle of the first century); but at Palaepaphus are several inscriptions of the Julio-Claudians (including two of Tiberius himself). In all these the lettering is quite characteristic, being in the traditional style but with the

²⁹ Of two inscriptions to Domitian which survive in Cyprus, one (unpublished) is a graffito which has been saved from erasure by its ephemeral character; the other, *IGR* iii, 945, an altar from Palaepaphus, on which Domitian's name can only be read with such

difficulty that it has probably suffered deliberate damage. For this second inscription my squeeze gives the following: (a) Ἀφροδείτη Παφία | Δομιτιανὸς Σεβαστό[ς] (b) Ἀφροδείτη [Παφία] | - - Σεβαστό[ς].

³⁰ Cf. *IGR* iv, 1393.

exaggerated false apices of the period. The lettering of the present inscription, when compared with these, points to a different era. (3) The intervention of a proconsul (or, more precisely, the mention of such intervention) in the dedication of a statue by a city to an emperor is unknown in Cyprus under the first emperors.³¹ (4) M. Hortensius Hortalus, grandson of the orator, in A.D. 16 appealed to Tiberius for a renewal of the subsidy he had received from Augustus; he was repudiated and the family fell into a shameful obscurity.³² It is unlikely that a member of this family, whether collateral or direct descendant of the great Hortensius, would as proconsul of Cyprus under Tiberius make a parade of this relationship. (5) Two dedications to Tiberius are already known from Palaepaphus, both made by the senate and people of Σεβαστὴ Πάφος; the first³³ on his accession to the principate, the second³⁴ shortly after the grant by Tiberius of ἀσουλία in A.D. 22. For their first four lines, these two inscriptions are identical. Those, therefore, who would date *IGR* iii, 944 to this reign must explain why Paphos should make a third dedication at Palaepaphus to the same emperor; and, secondly, why it should use a titulary and phraseology so markedly different. (6) It is not easy to see why Paphos, *florens viribus*, should re-use the pedestal of an earlier statue, without either refacing the stone or defacing the previous inscription. But in the 8th or 9th year of Vespasian³⁵ an earthquake destroyed three or more cities of Cyprus, of which we have reason to believe that Paphos was one. Such a disaster would explain so manifest a sign of poverty.

³¹ An inscription from Lapethus (*IGR* iii, 933) tells of a shrine and statue, dedicated to Tiberius, being consecrated by the municipal high priest of the imperial cult. Later, with imperial statues, the consecration was regularly performed by the local representative of the emperor; but, save for the present instance, the practice finds no mention on Cypriot statue-bases before the Septimian era; to which belong *SEG* vi, nos. 810 and 811 (below, no. 4), and *IGR* iii, 977 (Julia Domna). Inscriptions under the statues of Nerva (*IGR* iii, 976—I examined this inscription at Munich in 1936 and found κτιρέων and not κτιρών to be the correct reading), Trajan (*IGR* iii, 987 and an unpublished text from Lapethus), Hadrian (*IGR* iii, 934) and Marcus (*IGR* iii, 929) have nothing to say of consecration. With shrines, etc., the usage was apparently different; here, a verb was freely included, and we accordingly find consecration by proconsuls under Titus of a *ἱερόν* (unpublished), under Claudius (*IGR* iii, 971) of a building (altar?) of unspecified character. For *IGR* iii, 971, though cut on a statue-base which carries a Hellenistic inscription (*OGI* 152), from the use of the dative case and the fact that it is inscribed on a narrow face of the stone, can hardly be concerned with a statue. *IGR* iii, 971 has not been examined since the original copy by Vidua's correspondent; but (though in the interval it has perished considerably) may still be seen in the yard of the police station at Episkopi. The following

text is based on a squeeze: [Κλαυδίω Καίσαρι Σεβαστῶι | Γερμανικῶι, ἀρχιερεῖ μεγίστῳι, | δημαρχικῆς ἐξουσίας αὐτῷ]οκράτορ[ι | πατρι πατρ]ίδος, Κουριέων ἡ πόλις | [ἀπὸ τῶ]ν προσκεκριμένων ὑπὸ Ἰουλι[ο]ν | Κέρδου] ἀνθυπάτου· Λούκιος Ἀννίος Βά[σ]σος ἀνθύπατος | καθιέρ[ω]σεν L 18'. The letters underscored are from Vidua's text. I see no good reason for ascribing this inscription to Nero rather than Claudius (Ritterling in *RE* xii, 1701, followed by *PIR*² i, p. 108, no. 637 and Hill, *o.c.*, 255); the margin between line 2 and the top of the stone is too narrow (0.05 to 0.055 m.) to admit of more than one line (the letters averaging 0.03 m. in height). Nor is it disputed that the Κλαυδίου Καίσαρος of *IGR* iii, 974 from Amathus refers unambiguously to Claudius.

³² Tacitus, *Ann.* ii, 37 and 38; Suetonius, *Tib.* 47.

³³ *IGR* iii, 942. That it is to be ascribed to Tiberius' accession is an inference from the absence of date and motive formula.

³⁴ *IGR* iii, 941. Tiberius is here described as the city's saviour and benefactor. In l. 6, before the name of the month, a regnal date is faintly legible: this I shall discuss in a forthcoming article on the chronology of Roman Cyprus.

³⁵ Cf. Hill, *o.c.*, 245. A very serious disaster in A.D. 76 or 77, when three or more cities were destroyed. Two of these, if the Sibylline Oracles may be trusted, were Salamis and Paphos (Hill).

The fact that Titus holds the office of *pontifex maximus* is proof that Vespasian was already dead; for this office is indivisible.³⁶ By a pleasing coincidence two unpublished inscriptions give the names of the proconsuls of Titus' second and third years. *IGR* iii, 944, therefore, can be dated with accuracy between July 1, 79 and the end of June of the following year. The arrival of the proconsul in the island would coincide with the news of Vespasian's death. Paphos, though still impoverished by the disaster which had befallen it some year or so earlier, honours the new emperor with a statue which the proconsul duly consecrates.

Two difficulties are still outstanding. Dessau interpreted Κοίντου Ὀρτηνσίου as part of a long 'agglutinative' name, of the type characteristic of the Antonine and Septimian periods; a nomenclature, however, alien to the Flavian era. It is better to suppose that the proconsul's name was formed after the regular pattern of his times, with praenomen (missing) and gentilicium,³⁷ followed by the father's name and that of the distinguished ancestor, and at the end the cognomen.³⁸ We have noted that the orator's grandson, M. Hortensius Hortalus, on his rebuff at Tiberius' hands, sinks with his family into obscurity. The claim of our proconsul to be descended from Hortensius is doubtless then through the female line.³⁹

The titles of the city of Paphos throughout the first two centuries of the Empire offer a problem of some interest. (1) Until 15 B.C. its designation is the simple ἡ πόλις ἡ Παφίων (or ὁ δῆμος ὁ Παφίων).⁴⁰ (2) In 15 B.C. the title Augusta was conferred, and we accordingly find Σεβαστῆς Πάφου ἡ βουλὴ καὶ ὁ δῆμος thrice and once possibly Σεβαστὴ Πάφος.⁴¹ (3) In the Septimian period a long titular, Σεβαστὴ Κλαυδία Φλαυία Πάφος, ἡ ἱερὰ μητρόπολις τῶν κατὰ Κύπρον πόλεων,⁴² is rigorously observed. (4) It is reasonable to suppose that the titles Claudia and Flavia were bestowed by the Claudians and Flavians

³⁶ The rule is first broken by Pupienus and Balbinus: cf. Cagnat, *Épigr. lat.* 4, p. 161.

³⁷ The initial letter of l. 4 is most difficult. The top of *omicron* in the original inscription is visible; and this, it would seem, has been re-used: *rho*, with *eta* and *iota* as alternatives, are offered in the order of their probability. The second letter, however, is an undoubted *kappa*.

³⁸ The first two letters of l. 5 are most uncertain. At the beginning are traces of the Hellenistic *epsilon*, which does not seem to have been recut; but *tau* or *gamma* is not impossible here. The second letter has been mostly flaked away; but over an earlier *upsilon*, whatever else may have been cut, a vertical stroke immediately before *sigma* is certain. This is most probably part of *eta*; *nu* however cannot be excluded, while *iota* preceded by either *alpha* or *lambda* is a possibility. For the name as a whole, cf. Dessau, 976: Λεύκιον Ἀρρουντίου, Λευκίου υἱόν, Ἀνι., Πομπηίου Μάγνου ἀπόγονον, Σκριβωνιανόν.

³⁹ For Hortensia, daughter of the orator, *RE* viii

(1913), 2481, no. 16. It is thought that she married Q. Servilius Caepio, father by adoption of M. Brutus; but of any issue to such a marriage nothing is known.

⁴⁰ From this it may fairly be deduced that dedications made by Paphos, in which that city bears no title, are earlier than 15 B.C. This will affect the dating of *IGR* iii, 952, 953 and 964, of which the first two already have 23 B.C. as their probable *terminus post quem*. Nor can the lost fragment from Paphos, *CIG* 2628, be referred (*pace* Cagnat *IGR* iii, 938) to Herodes Atticus: it is safer to ascribe it to Herod the Great, who may have had interests in Cyprus before acquiring in 12 B.C. his contract for the copper mines of the island.

⁴¹ Below, no. 11.

⁴² *IGR* iii, 937 (of which the last two lines should read: [δ]ιὰ τῶν τὸ ἔκτον [ἔτος ἀρξάν]των(?)); *SEG* vi, nos. 810 and 811; and four milestones (*IGR* iii, 967; *JRS* xxix (1939), 193, no. 5 and p. 194, no. 6; and one as yet unpublished).

respectively; ⁴³ but between A.D. 24 and 198 the name Paphos (setting aside the present inscription) occurs but once, undated and in an undecisive form (ἡ τύχη τῆς μητροπόλεως Πάφου).⁴⁴ We are therefore set a dilemma by *IGR* iii, 944: we may either restore [Σεβα]στή<ι> Πάφος thus simply, at a date when a fuller titulary was presumably in use; or, better, [Φλαουία Κλαυδία Σεβα]στή<ι> Πάφος, though this is not the order in which Σεβαστή occurs in the Septimian period.⁴⁵ When Paphos became 'Metropolis of the Cities of Cyprus' is not known. The undated inscription mentioned above, from its use of the square alphabet not found at Palaepaphus in the first century,⁴⁶ belongs presumably to the second. From the fact, moreover, that the rival Salamis under Hadrian suddenly styles herself ἡ Κύπρου [μητρόπολις],⁴⁷ it may be conjectured that Paphos, seat of the Roman government, had recently been awarded this title.

(4) Paphos sets up a Statue of Caracalla at Palaepaphus: *IGR* iii, 947 (*JHS* ix (1888), p. 252, no. 111) = *SEG* vi, no. 811 (Seyrig, *BCH* li, 1927, pp. 140, 141). Also, *PIR*² ii, p. 35, no. 180; Hill, *Cyprus*, p. 255, no. 24.

This inscription has been admirably restored and discussed by Seyrig, with the aid of a parallel inscription from Paphos which he himself publishes.⁴⁸ Nevertheless, a fresh examination of the stone has proved of value: some small improvements can be made in Seyrig's text, and one interesting point is established.

(squeeze) [Αὐτ(οκράτορα) Καίσαρα Μ(ἄρκον)] Αὐρή[λιον ᾿Αυτωνεῖνον Σεβαστόν,
᾿Αραβικόν]
[᾿Αδιαβηνικὸν Παρθικὸν[ν μέγ(ιστον)(?) Βρεττανικὸν Γερμανικόν(?)]
[ἄρχιερέα] μέγιστον, δημαρχ[ι]κ[ῆς ἐξου]σίας, π[ατέρα πατρίδος],
[Σεβαστ]ῆ Κλαυδία Φ<λ>αυία Πά[φ]ος, ἡ ἱερὰ μητρόπ[ολις τῶν κατὰ]

⁴³ It is not known why or when Paphos received the title *Claudia*. It has been sensibly suggested by Hill (*o.c.*, 233) that Flavia was a return for the favourable reception which Titus was accorded at Old Paphos in A.D. 69.

⁴⁴ *IGR* iii, 962.

⁴⁵ But this alteration in the order of titles is understandable. A title derived from a reigning emperor or dynasty heads the list, which is then given in reverse (cf. *IGR* iii, 879 for the titulary of Tarsus). Paphos, by the Septimian era, had for over a century won no new title; and her titulary is accordingly presented in its proper chronological sequence.

⁴⁶ A rare alphabet at Old Paphos, the only dated example being *SEG* vi, no. 811 (*sigma* only). Square *sigma* is also found in *JHS* ix, 245, no. 77 (undated), and, according to edd., in *IGR* iii, 943 (No. 12 below).

⁴⁷ *IGR* iii, 989 (*JHS* xii (1891), 180, no. 15; *IBM* iv (1916), no. 983). The last two lines of this inscription should read: [ἡ πόλις ἡ Σαλαμειν(ίων) ἡ

Κύπρου [[μητρόπολις (?) τῶ ἑαυτῆς θεῶ(?)κ]αὶ σωτῆρ[ι]. My squeeze shows that the lacuna in l. 5 is some twenty-one to twenty-three letters in length, while there is no justification for the ungrammatical σωτῆρα hitherto accepted. It will be noted that *μητρόπολις*, though a restoration, hardly admits of an alternative. In the third year of Trajan Salamis still describes herself simply as ἡ πόλις (*IGR* iii, 987). How long she may have kept the title there is insufficient evidence to determine; but an inscription, ascribed chiefly on its lettering to the Antonine period (*CIG* 2639) speaks only of [ἡ] κατὰ Σαλαμίνα γερονσία. For a plurality of *μητροπόλεις* in one province (apart from the case of Egypt), Cilicia is instructive. Here, Tarsus became *μητρόπολις* under Augustus (Strabo, xiv, 5, 13); but when at the beginning of the third century Anazarbus arrogated the title, Tarsus could only retaliate by styling herself ἡ πρώτη *μητρόπολις* (*IGR* iii, 879).

⁴⁸ *BCH* li (1927), 139, no. 3.

- 5 [Κύπρo]ν πόλεων, ἐκ τῶν ι[δ]ίων αὐτῆς προσό[δων - c. 8 -]
 [3 or 4]ΟΥ Τ(ίτου) Καισερνίου Στατι[α]νο[ῦ Κουίγκ]τιανοῦ ἐ[πιτρόπου],
 [καὶ Γ]αίου 'Ιουλίου 'Ηλιανοῦ [Πολυβιανοῦ, λ]ογισ[τοῦ δοθέντος ὑπ']
 [αὐ]τοῦ(?), δι' ἐπιμελητοῦ [- c. 25 - ἀρχ]-
 [ιερ]έως Παφίας 'Αφροδ[ίτης - -

L. 2: after Παρθικό[ν], to judge by l. 1, some 25, by l. 3, some twenty-eight letters have been lost. Βρεττανικόν, since it appears in the parallel inscription from Paphos, can therefore be restored with some certainty. Whether Γερμανικόν, not found at Paphos, is to be included, is problematic. It is used of Caracalla in 213 and 'sometimes earlier',⁴⁹ and is therefore chronologically satisfactory; but we do not know whether μέγιστον after Παρθικό[ν] was abbreviated (as at Paphos) and, if so, how; while the same uncertainty recurs with Βρεττανικός, which is normally (but not at Paphos) qualified by μέγιστος.

L. 3: *SEG*, δημαρχ[ικῆς ἔξου]σίας τ[ὸ ι .', ὑπατον τὸ -]; but the last letter of the line is an undoubted *pi*. In the 3rd century, the numeral is frequently omitted with the tribunician count.

L. 4: on the stone, ΦΑΥΙΑ; *SEG* Φλ(α)υία.

L. 5: *SEG*, ἐκ τῶν ι[δ]ίω[ν καὶ ἐκ] τῆς προσό[δου?], after the first edd.

L. 6: Στατι[α]νο[ῦ] for Στα[τ]ιο[υ]. This new reading, together with the narrowing of the lacuna following it to six letters, makes Cagnat's restoration [Κουίγκτ]ιανοῦ secure. After the final letter of this last name, a short uncut space, occupied by a dot which is probably not accidental. Thereafter, a broken letter which is given by edd. as *kappa*, but is almost certainly *epsilon*. I have repeatedly examined this letter in the hope of finding some trace of *alpha*; and I am convinced that this at least is impossible. At the end of the line, a lacuna of c. 9 letters.

L. 7: [δοθέντος ὑπ']αὐτοῦ, cf. *SEG* vi (1932), no. 810: λογιστοῦ . . . δοθέντος ὑπὸ τῶν . . . αὐτοκρατόρων.

L. 8: after the initial lacuna of c. 3 letters, an upright, which may be *iota*; but as it is set at some distance from *omicron*, it is more probably *tau* or the right-hand hasta of *pi*.

SEG vi, 810 records the erection of a statue to Caracalla at Paphos by that city after the end of February 211, when the news of Septimius' death had reached the island, and before the end of June in that same year. The proconsul of that inscription does not recur. This and some significant differences in titulary and phrasing indicate that the present inscription is appreciably later and that it cannot concern the erection of a companion

⁴⁹ Cagnat, *Épigr. lat.*⁴, 209.

statue at Palaepaphus for the same occasion. That C. Julius Helianus Polybianus is curator⁵⁰ of Paphos in both is of little help in dating: as curator he was under imperial orders, with a tenure of office of no fixed duration; and accordingly we cannot go beyond the probability that our inscription belongs to the first rather than the second half of Caracalla's brief reign. For occasion, we can only fall back on pure conjecture. It may be that here we have a re-affirmation of loyalty after the murder of Geta late in February 212.

T. Caesernius Statianus Quinctianus is clearly a member of the Caesernii Statii of Aquileia—a family which produced under Trajan a procurator Augusti, under Pius two consuls.⁵¹ He is doubtless the Caesernius Statianus who at some time during the joint reign of Septimius and Caracalla was curator of Nicomedia.⁵² In the present inscription he holds an official position, senior to that of the curator, parallel to but distinct from the proconsulship; this can hardly be other than the procuratorship. Save for one T. Statilius Apollinarius of Heraclea, who under Pius was procurator for a group of provinces which included Cyprus, only one procurator has hitherto occurred in the fasti of the island.⁵³ However, it is known that Septimius made a practice of temporarily replacing proconsuls in senatorial provinces by procurators;⁵⁴ it would seem that here under his son we have a case in point. It is of interest to find in the confusion of this period an office so essentially equestrian held by a person of senatorial rank.⁵⁵

(5) A Fragmentary Bilingual on an Architrave at Palaepaphus: *IGR* iii, 948 (*JHS* ix (1888), 260, no. 14) = *IGR* iii, 963 (E. Oberhummer, *SB München*, 1888, p. 324, no. 13).

This inscription was copied independently by Oberhummer and the *JHS* edd. in the spring of 1888. *IGR* treats these two versions as separate inscriptions. That it is bilingual (the fourth line, omitted by *IGR*, being Latin) has not been hitherto recognised. It is remarkable that from all the long

⁵⁰ For the *curator civitatis* and a brief but admirable history of his office, A. H. M. Jones, *The Greek City*, 136-8. A list of these *curatores* is given by M. N. Tod in *JHS* xlii (1922), 172 ff.

⁵¹ *PIR*² ii, p. 35, no. 181; p. 36, nos. 182 and 183. Seyrig's suggestion (*BCH* li (1927), 141) that the Caesernius of our inscription is T. Caesernius Statius Quinctius Macedo Quinctianus (*PIR*² ii, p. 36, no. 182) is untenable (as is his proposed restoration of *CIL* v, 865), because the latter was praetor under Hadrian, probably before the year A.D. 132.

⁵² *IGR* iii, 6; *PIR*² ii, p. 35, no. 179.

⁵³ M. Campanius Marcellus was *proc. provin. Cypri* (Dessau, 1398) not earlier than the reign of Hadrian. An inscription from the Phrygian Heraclia (*MAMA* vi (1939), no. 97), concerning a native of that city, T. Statilius Apollinarius, shows by a convincing

restoration that Πιοϋιδίας ἐπιτροπέας ἔτυχεν ἀμα καὶ Κιλικίας(?) Παιμφυλίας Κύπρου. From Apollinarius' career it may be deduced that he held this office under Pius.

⁵⁴ C. W. Keyes, *The Rise of the Equites in the Third Century of the Roman Empire* (1915), 3 ff.; Rostovtzeff, *Social and Economic History of the Roman Empire*, 354.

⁵⁵ Such Caesernius Statianus clearly was by birth, while a city so important as Nicomedia can hardly, even at this date, have had any but a senatorial curator. At the beginning of the third century, however, distinguished provincials and equites had in general long broken down the senatorial monopoly to the office; and by the middle of that century the curator was regularly a citizen of the city he administers.

history of the temple of Aphrodite at Palaepaphus, save for this obscure fragment, no architectural document has survived.⁵⁶



FIG. 3.—*IGR* iii, 948 = 963.

(squeeze) --- Σεβαστή ---
 --- Η ἀρχιερέα ---
 --- ΤΡΙ Τιβερίου ---
 --- ΟΤΕ Σ Μ ---

⁵⁶ An analysis of the inscriptions of Kouklia, eighteen stelae and tablets, seven altars, etc., a herm Hellenistic and Roman, shows some 118 statues, and a few such miscellaneous objects as an inscribed

Built into a wall on the S. side of the road leading from the Temple area to the new church of St. Luke. Block of sandstone, h. 0.405, w. 0.276 m. Letters, lines 1 to 3, from 0.033 to 0.045; l. 4, 0.135 to 0.145 m. The four letters of l. 4 are narrow, well cut and without apices, in these respects contrasting with the lines above. Between the third and fourth letter the mark ς regularly used in Cyprus to denote abbreviation.⁵⁷ At the top of the stone, a low moulding. The inscription is clearly complete above and below, missing both to right and left.⁵⁸

It would seem that we here have a fragment from the dedication of a building, probably in the early second century (as the style of lettering suggests), by the city of Paphos (Σεβαστή being presumably part of the title of that city).

(6) A Proconsul, D. Plautius Felix Julianus, honoured by the Senate and People of Paphos: *IGR* iii, 954 (*JHS* ix (1888), 248, no. 97) and *IGR* iii, 955 (*JHS* ix (1888), 253, no. 114). Cf. also Hogarth, *o.c.*, 118; Hill, *o.c.*, 256, no. 28; *PIR*¹ iii, p. 45, no. 352.

The two parts of the same text have been treated as separate inscriptions. I was only able to see at Kouklia the larger left-hand portion (*IGR* iii, 955); but any doubts I may have had⁵⁹ were quite removed by finding at the right edge of this stone, in addition to the broken *omicron* shown by edd. in l. 4, in l. 1 the first hasta of *pi*, in l. 2 the tip of *lambda*. The broken letter at the end of l. 3 is almost certainly *gamma*, rather than *rho*. Thus no single letter is missing.

(squeeze) Ἀφροδείτη Παφία.
Δ. Πλαύτιον Φήλειακ' Ἰ-
ουλιανόν, τὸν ἀγνόν
ἀνθ(ύπατον), ἡ βουλή καὶ ὁ δῆμος.

L. 3: for ἀγνός used of a proconsul, cf. the motive formulae ἀγνείας χάριν and ἀγνείας καὶ δικαιοσύνης χάριν from Citium and Salamis respectively;⁶⁰ further, Ἀσίνιος Γάλλος (proconsul of Asia) ἀγνός on a coin

tortoise, a dish, a ring. Of porticoes, shrines and buildings generally there is no record whatsoever. I have little doubt that the rarity of inscriptions for the second century A.D. is due solely to the overcrowding of that portion of the general temple complex that has been excavated.

⁵⁷ Cf. Avi-Yonah, *Abbreviations in Greek Inscriptions*, 37. His earliest instance of this sign, in its upright form and written after the word abbreviated, is from the middle of the second century. In Cyprus it occurs from the Antonine period (*BMI* iv, 986, dated by its lettering) to the Byzantine (when it is common), the latest instance, so far as I am aware, being from the reign of Heraclius (*LBW* 2763).

⁵⁸ At the end of l. 1 there appears a lower apex, indicating a vertical stroke. This, unless it be ac-

cidental, is decisive against *omicron*. At the end of l. 2 *alpha* is definitely preferable to *iota*. The remainder of the text is without difficulty.

⁵⁹ Edd. describe the lost *JHS* ix, no. 97 as cut on a 'white,' *JHS* ix, no. 114 on a 'pink' stone. Further, they give for the former letter-forms (such as *alpha* with the bar broken; and cursive *alpha*, *mu* and *nu*) not shown in *JHS* ix, no. 114. *JHS* ix, no. 114 is in fact inscribed on a greyish-white marble; while *JHS* letter-forms are generally untrustworthy.

⁶⁰ *IGR* iii, 978, now immured into the Church of the Soteira at the Metropolis of Larnaca; it is not easy to see why χάριν should have been omitted by Vidua's source or by Angelati, unless indeed it was then mortared over. From Salamis, *IGR* iii, 992.

from Temnos; ⁶¹ τὸν . . . ὑπατικὸν τὸν ἀληθῶς ἄγνον from the Cilician Soli. ⁶²

Beyond suggesting that our inscription, from its lunar lettering and the ligature of *eta* and *mu* (*JHS* ix, 248, no. 97), is probably Antonine, I can add nothing to the little that we already know.

(7) The Seventh Milestone from Curium to Paphos, inscribed under Aurelian: *IGR* iii, 968a (Sakellarios, Τὰ Κυπριακά, 80; Waddington, *LBW* 2807a; *CIL* iii, 219a; L. Homo, *L'empereur Aurélien*, 358). Also, Mitford, *JRS* xxix (1939), 197; Hill, *o.c.*, 236–8.

This milestone may still be seen at Paramali, some 150 yards E. of the last house in the village, among the scrub on a slight elevation above the main road. The present inscription is the earliest of the four which the stone now carries; but from the roughness of its surface and numerous stray markings (of which, however, none are legible), the milestone is in origin either Septimian or earlier. Since Waddington's time the left centre of our inscription has been broken away; but a squeeze shows sufficient new readings to allow of almost complete restoration.

(squeeze) Αὐτοκρ[άτο]ρα
 Καίσαρα [Λο]ύκιον
 Δομίτι[ον] [Αύρηλ]-
 [ιαν]ό[ν], [Εὐσ]εβῆ Εὐτ[υχῆ]
 5 [ἀνίκ]ητ[ον], Σεβαστόν,
 [ἀρχιερέα μέγ]ιστον, Γ[οτ]-
 [θικόν, Γερμα]νικόν,
 [Παρθικόν(?) μέ]γιστον, δ[ημ]-
 [αρχικῆς ἐ]ξουσίας
 10 [τὸ γ'(?), αὐτοκρ]άτορα
 [τὸ - ?, ὕπατον], πατέρα
 [πατρίδος, ἀν]θύπατον.

The letters underscored are found in Waddington's copy only.

Lines 3–4: the erasure of Aurelian's name is most unusual, only three instances being known: from Italy, Dalmatia and Lower Moesia.⁶³ In one of these the name of the imperial legate is also attacked, suggesting some motive of historical importance which is now lost to us. However, a milestone on this same road carries Aurelian's name undamaged,⁶⁴ and thus effectively robs the Cypriot instance of any real significance.

⁶¹ Cited by Waddington, *Fastes des provinces asiatiques*, under Asinius Gallus (no. 58).

⁶² *IGR* iii, 875.

⁶³ *CIL* v, 4319 (Dessau, 579) from Brixia; *CIL* iii, *Suppl.*, 12736 (Dalmatia); *CIL* iii, *Suppl.*, 7586, from

Callatis. There is a possible fourth instance from Smyrna, *CIL* iii, 472. L. Homo, *Essai sur le règne de l'empereur Aurélien* (1904), 326, can offer no explanation.

⁶⁴ The 15th milestone from Paphos on the road to Curium, as yet unpublished. Homo notes, *l.c.*,

Lines 6-8: I have noted some 8 instances in which Γερμανικός precedes Γοθτικός; some 4 in which this order is reversed.⁶⁵ Despite the confusion which prevails in Aurelian's titulary, Παρθικόν rather than Καρπικόν may be confidently restored in l. 8. Since both Egypt and Asia Minor formed part of Zenobia's dominion, Cyprus can hardly have been excluded. But before August 272 Aurelian was recognised in Egypt; and in the same autumn the emperor crowned his conquest of Palmyra with the title Parthicus Maximus.⁶⁶ The present inscription, which cannot be earlier than these events, in all probability records the return of Cyprus to the empire, a supposition strengthened by the fact that only three titles are here included. From a Cypriot document, which gives the emperor's full titulary, Parthicus can hardly be absent. The consequent exclusion of Carpicus (a title derived from Aurelian's victory over this people on the lower Danube immediately after his first Syrian campaign) suggests as a probable *terminus ante quem* the winter of 272-3.

Aurelian's third *tribunicia potestas* ran from December 10, 271, to December 9, 272.⁶⁷ The omission of μέγιστος with both Γοθτικός and Γερμανικός is not without parallel.⁶⁸

By the middle of the third century the imperial acclamation had lost its proper significance—with Aurelian it is regularly omitted, once included without a figure,⁶⁹ sometimes given a figure which is manifestly fictitious.⁷⁰ When revived by Diocletian the acclamation serves solely to repeat the number of the regnal year already given by the *tribunicia potestas*.⁷¹

The lacuna in l. 11 should contain some reference to Aurelian's consulship. He was cos. I on January 1, 271, but did not hold this office again until 274. Irregularities are found in the reckoning of Aurelian's consulships, however, which are still without explanation.⁷²

that in a second inscription from Brixia, *CIL* v, 4320, Aurelian's name shows no sign of damage; and, it may be added, the Moesian and Dalmatian instances are equally isolated. The explanation is doubtless to be found in local and uncoordinated malice.

⁶⁵ *CIL* iii, *Suppl.*, 7586; *CIL* xi, 2635; *CIL* v, 4319; *CIL* vi, 1112.

⁶⁶ The only official title taken from this conquest; Arabicus and Palmyrenicus, since they refer to peoples legally within the Empire, being improperly used. For Parthicus, Persicus is once substituted (*CIL* xii, 5561), perhaps in error. Formidable problems are raised by every attempt to correlate Aurelian's titulary with our scanty knowledge of his actual campaigns. Here I can only refer to the reconstruction of Homo, *o.c.*; and for a more recent treatment, Mattingly in *CAH* xii (1939), 297-311.

⁶⁷ Homo, *o.c.*, 340; Cagnat, *Épigr. lat.*⁴, 227. Here too, the monuments show great irregularities, as yet unexplained. As an example, coins give a seventh (sic) tribunician count, coupled with the second consulship which falls in the year A.D. 274. So also

the inscription, Dessau, 581.

⁶⁸ *CIL* viii, 9040; Orelli-Henzen, 5551 (Germanico Gothico maximo).

⁶⁹ Orelli-Henzen, 5551.

⁷⁰ *CIL* vi, 1112 (from Rome), dated to the end of 274. Aurelian is given in the text four titles derived from victories; and yet is described as *imp. III* (and of these one must be the initial acclamation on his assuming the purple). In *CIL* xii, 5548, of the preceding year, *Imp. III* is likewise found. Further, Homo, *o.c.*, 141³.

⁷¹ Cagnat, *Épigr. lat.*⁴, 232. But this view is opposed by O. Seeck in *Rh.M.* xlviii, 196 ff.

⁷² While the dates of Aurelian's three consulships are not open to question, irregularities again occur in their presentation on the monuments: Cagnat, *o.c.*, p. 227⁵. The proconsulship is almost invariably included by Septimius and his successors, whenever a full titulary is given. I note some nineteen instances with Aurelian, usually as the final title, immediately preceded by *pater patriae*.

(8) The People of Salamis erect a Statue of Nero: *IGR* iii, 985 (*JHS* xii (1891), 172, no. 5—text of J. A. R. Munro, with restorations by ed., presumably P. Gardner).

The *IGR* version might concern either Claudius or Nero. A squeeze, however, gives sufficient new readings to remove this ambiguity. The inscription may still be seen at Enkomi, cut on a pedestal of slate-blue marble, which, save for chipping at edges and at corners, is complete.⁷³ The maximum number of lines is six; only four are legible; of these the first two are badly worn down.

(squeeze) [Νέρωνα Κλαύδιον Καίσαρα]
[Σεβαστόν, Γερμανικόν, δημαρχικῆς]
[ἐξουσίας τ]ὸ ἕκτον, αὐ[τ]οκρά[τ]ορα
[τ]ὸ ἕκτον, ὕπατον ἀποδεδειγ[μέ]-
5 [ν]ον τὸ τέταρτον, ὁ δῆμος
[ὁ Σα]λαμινίων τὸν ἑαυτοῦ π[ατέρα].

ὕπατον ἀποδεδειγμένον τὸ τέταρτον: the inscription is earlier than January 1, 60; later than January 1, 59, when Nero was designated for his fourth consulship.⁷⁴ For a closer dating the imperial acclamation is of little assistance. Nero was acclaimed *imp.* VI when the news of the capture of Artaxata reached Rome.⁷⁵ We must suppose that Cyprus had not yet been notified of his seventh acclamation, accorded, it has been convincingly argued, a year later in the late summer of 59, on the fall of Tigranocerta.⁷⁶ It is otherwise with the *tribunicia potestas*. Nero received his sixth *trib. pot.*, on the view which in recent years has been heavily supported,⁷⁷ on December 4, 59; according to the traditional reckoning,⁷⁸ on October 13th of the same year. Our inscription therefore falls between one or other of these dates and the end of the year. In passing, we may note that the present inscription, from its failure to mention the seventh acclamation, would appear at first glance to give some slight support to the traditional dating. It has been maintained

⁷³ Dimensions: l. 0.61; h. 0.24 m. There is no trace of the first two lines. At the beginning of l. 3 are clearly visible the markings taken by edd. as AT (better ΔΤ). The stone here has been badly scratched; but I think it probable that these markings conceal an original ΣΙ. Thereafter, a lacuna of c. 3 letters. The remainder of the line can be read with certainty.

⁷⁴ In the *Acts of the Arval Brotherhood* for A.D. 59 (Dessau, 229⁴¹), under the rubric January 3, Nero is styled *cos. III, design. IIII*. This is disputed by Constans, *CRAI*ns. 1912, 388, who points out that l. 67 of the same inscription records the offering of sacrifices in March *ob comitia consularia*. But, as Dessau observes (note 20 on p. 61), the *comitia* in question were probably those of the year 51.

⁷⁵ Towards the end of 58: Tacitus, *Ann.* xiii, 41. So Stuart-Jones, *RA* iii (1904), 266, followed by Anderson in *CAH* x, 762.

⁷⁶ Nero was *imp.* VII by January 1, 60 (*Acts of the Arval Brotherhood* for the year 60: *CIL* vi, 2042 d, 17). Tigranocerta fell before the close of the campaigning season of 59; the news would reach Rome in the early autumn: Stuart-Jones, *l.c.*, 269; Anderson, *l.c.*, 764².

⁷⁷ Mattingly, *JRS* xx (1930), 79 ff. (after Stobbe, *Philologus* xxxii (1873), 23); more recently, Momigliano, *CAH* x, 702.

⁷⁸ Mommsen, *Hermes* ii (1867), 56; Cagnat, *Épigr. lat.*, 186; Sandys, *Latin Epigraphy*², 237.

that in 58 news of Nero's sixth acclamation had reached Bithynia before October 13.⁷⁹ That Cyprus had no knowledge of the seventh by October 13, 59, need occasion no surprise; but by December 4 we would certainly expect this information to have reached the island; the more so as it would appear that Artaxata fell at a later date in the year than did Tigranocerta, since the campaign of 58 ended with Artaxata, that of 59 with the reduction of Legerda.⁸⁰ This point, however, cannot be pressed.

In the long controversy over Nero's *tribunicia potestas* I am not aware that any part has been played by *IGR* iii, 986 (*JHS* xii (1891), 184, no. 22; *IBM* iv, 982),⁸¹ a fragmentary inscription, also from Salamis, on a plaque of white marble, now in the British Museum. In certain particulars, the *IGR* version is not satisfactory, and I accordingly offer the following:

(squeeze) [Αὐτοκράτορι Νέρωνι Κλαυδίω]
[Καίσαρι Σεβ]αστῷ Γερμαν[ικῷ, δημαρχ]-
[ικῆς ἔξουσίας τ]ὸ 3', αὐτοκράτορι τὸ 3', ὑπά[τω τὸ δ', πατρὶ]
[πατρίδος (?), ὁ δεῖνα τοῦ δεῖνος] ΡΟΣ τῷ ἰδίῳ θεῷ καὶ σωτῆρι ἐκ τοῦ
ἰ[δίου καθιέρωσεν (?)].

The size and spacing of letters are such that nine letters of l. 2 occupy the same space as 14 of l. 3; 17 of l. 4.

L. 2: of the last four letters only the bases are visible.

Lines 3-4: πατρὶ πατρίδος (?) is included to do justice to the lacunae.

L. 4: at beginning what is apparently the upper part of *rho*. If this, however, be due to flaking, almost any letter is possible, with the cavities on the stone suggesting *sigma* or even *epsilon*. ΡΟΣ, which I accordingly offer with some diffidence, is taken as the end of a patronymic; [Κυπρίων ἡ νῆ]σος of edd. and *IGR* is rejected without hesitation. In itself it is untenable, for there is no such phrase in either the Roman or the Hellenistic epigraphy of Cyprus. Further, it accords poorly with ἐκ τοῦ ἰ[δίου], which in any case at this period rather implies an individual than a corporate dedicator.⁸² I take it that *IGR* iii, 986 was affixed to an *aedicula*, erected to the emperor, doubtless by the priest of the imperial cult at Salamis (τῷ ἰδίῳ θεῷ).⁸³ With the dedication of a building, it has already been noted,⁸⁴ the verb is regularly included.

⁷⁹ Stuart-Jones, *l.c.*, 269.

⁸⁰ Tacitus, *Ann.* xiv, 25.

⁸¹ Noted, however, by Constans, *l.c.*, 385^a, as 'incomplète, attribuée à Néron.'

⁸² V. Chapot, *Mélanges Cagnat* (1912), p. 80, rightly objects to the conjunction of [νῆ]σος with ἐκ τοῦ ἰδίου; but can offer no remedy. 'Εκ τοῦ ἰδίου with its variants ἐκ τῶν ἰδίων, ἰδίῳις ἀναλώμασι, ἐκ τῶν ἰδίων προῖκα and προῖκα simply are, it would seem, properly used of individuals. Cities prefer a more stately phrase: ἐκ τῶν ἰδίων αὐτῆς προσόδων, ἀπὸ πόρων

τῶν δογματισθέντων, ἀπὸ τῶν προσκεκριμένων. I note two exceptions, with Salamis (*IGR* iii, 992) and with the Κοινόν of Cyprus (*IGR* iii, 993). In this connection, minor corrections may be made in two published inscriptions, both from Citium: *LBW* 2735, lines 6 and 7—τὰ ἐν αὐτῷ πάν|τα ἰδ|ίοις ἀναλώμα[σι]; *IGR* iii, 982, lines 5 and 6—γυμνασιαρχήσαντα ἐκ τῶν ἰδ[ί]ων | προῖκα (for Πρό[κλ]α?).

⁸³ Cf. *IGR* iii, 933.

⁸⁴ Note 31 above.

That the inscription is to be restored to Nero has not been seriously questioned.⁸⁵ Its interest lies in its conjunction of *trib. pot. VII* with *imp. VII*, which thus sets it beside two much-debated documents: (1) the *Acts of the Arval Brotherhood* for the year 60,⁸⁶ with the twice-repeated mention of Nero as *trib. pot. VII* and (2) the Pannonian diploma, Dessau, 1987, dated to July 2, it is generally supposed, of the year 60, likewise with *trib. pot. VII, imp. VII*. To Mommsen and the traditional school, with their thesis that for the emperors before Trajan the *tribunicia potestas* in theory if not in practice coincided with the *dies imperii* and was renewed year after year on the *dies imperii*, these have proved a veritable thorn in the flesh. Mommsen, facing his difficulty with a characteristic if somewhat ponderous honesty, admitted an exception to his own thesis by bringing forward Nero's seventh *trib. pot.* to December 4, 59 (his first view)⁸⁷ or December 10 (his second).⁸⁸ They are equally obnoxious to the followers of the theory originally enunciated by Stobbe,⁸⁹ who find no essential connection between *dies imperii* and *tribunicia potestas*, and in the particular case of Nero date his *trib. pot.* throughout from December 4. This second school, preferring surgery to medicine, states roundly that the Arval record is in error in giving *trib. pot. VII* instead of *trib. pot. VI*; and, secondly, that the diploma is to be dated not to 60 but to 61.⁹⁰ This is not safe country in which to be caught in the open: I shall confine myself to pointing out the coincidence that Salamis can offer two Neronian inscriptions of this debated period. *IGR* iii, 986 is to be dated, according to the traditional view, between December 4 (or December 10)

⁸⁵ The inscription is a remarkable example of the lunar alphabet, the more striking when contrasted with its contemporary, *IGR* iii, 985. Save for *iota* and the uprights in *tau* and *pi*, there is hardly a straight line in it, even the upper strokes in *zeta* and *tau* being up-curved. Datable specimens of this alphabet—none, however, so extreme, the normal criteria being cursive *epsilon*, *mu*, *sigma* and *omega*—show for the first century five instances: Tiberius, Nero, Domitian (2) and Nerva. Second century, eleven instances: Trajan, Hadrian, Marcus (2), Commodus and Septimius Severus (6). Third century, three instances: Macrinus and Aurelian (2).

From the middle of the second century to the Arab invasion, the lunar alphabet is in almost exclusive use, the square being virtually its only rival. Certain inscriptions combine lunar and square forms (e.g., *IGR* iii, 934) and lunar and classical (e.g., *IGR* iii, 950). Some again use lunar and square forms in different parts of one text (*SEG* vi, no. 811). The Septimian milestones from the W. of Cyprus show one good example of square lettering, while the remainder are lunar.

The classical alphabet, with *sigma* and *omega* as its criteria, is thoroughly characteristic of the first century, though almost invariably it uses the square-topped *rho* (which is foreign to the Hellenistic period). Rare in the second century after the reign of Trajan, from the third there is an isolated example of the

classical *sigma* provided by an archaising inscription (*IGR* iii, 958), and an unpublished instance from the fourth. For the second century I note three occurrences under Trajan, one under Hadrian, one under Marcus, and, if the various edd. are to be trusted, there is a further instance under Marcus (*IGR* iii, 946) and another under Septimius (*IGR* iii, 937).

⁸⁶ *CIL* vi, 2042 d.

⁸⁷ *Hermes* ii (1867), 56.

⁸⁸ *Droit public romain* v, 62².

⁸⁹ *Philologus* xxxii (1873), 23–30.

⁹⁰ It may be noted that Stobbe confines himself to pointing out that the *consules suffecti* of the diploma may belong, not to 60, but to 61 A.D. Mommsen's answer is to be found in *Droit public romain* v, 62². However, the inscription Dessau, 8902 would appear to prove that by 63 Nero had returned to the original system of tribunician reckoning; supported as it is by the numismatic evidence cited by Mattingly. And, if we are not to give both the Arval record and the diploma the lie, some such explanation as that of Constans may prove to be necessary. Constans suggested, *l.c.* 391, that the comet recorded during the year 60 (Tacitus, *Ann.* xiv, 22), with its portent of a new reign, terrified the emperor into a superstitious tampering with the tribunician count to avert the omen. This suggestion would be attractive, could it be shown that the comet was first seen towards the end of 59.

59 and December 3 (or December 9) 60; to the modern view, a year later, between December 4, 60 and December 3, 61. The seventh acclamation, as has been noted, was proclaimed in Rome in the autumn of 59, and is therefore of no help in making a decision between these two years. Equally indecisive is the absence of the eighth acclamation. Though only found in conjunction with *trib. pot.* VIII,⁹¹ this last can serve as a *terminus ante quem*, so that *imp.* VIII can date from *trib. pot.* VII. It is known that Nero offered a *congiarium* in honour of Suetonius Paulinus,⁹² the occasion Suetonius' expedition to Mona, before receipt in Rome of news of the *clades Britannica*. This expedition (but the point has been much debated) is now assigned to the early part of 61.⁹³ Ignorance of this acclamation in Cyprus may induce those who hold the modern view to place our inscription before the autumn of 61, but can cause no embarrassment either to them or to their opponents.

(9) A Palimpsest from Famagusta: *IGR* iii, 997 (R. Pococke, *Inscriptionum Graecarum liber* (1754), pt. 1, c. 4, p. 42, no. 1; K. Vidua, *Inscriptiones antiquae* (1826), tab. 30, 3; J. Letronne, *J. Sav.* 1827, p. 170; *CIG* (Boeckh) 2630; W. H. Engel, *Kypros* i, 97, 2; V. Chapot, *Mélanges Cagnat* (1912), p. 78.

This inscription may still be seen, immured about 14 feet above ground level into the Sea Gate of Famagusta, and on the right as the gate is viewed from the town. It is inverted and supports the uppermost of the four hinges which carry the right-hand leaf of the door. First examined by Pococke over two centuries ago, and again by Vidua some eighty years later, in the circumstances it is not surprising that the *CIG* text—a conflation of these two authorities—is inadequate.

(squeeze) (a) [Αὐτοκράτορι Καίσαρι]
 [Θεοῦ υἱῶι Θεῶι Σεβαστῶι]
 [ὁ δεῖνα τοῦ δεινός, ἀρχιερεὺς]
 διὰ βίου αὐτοῦ καὶ τῶν
 5 διδύμων υἱῶν [αὐτοῦ]
 Γαίου καὶ Λουκίου Καισά[ρων],
 γυμνασιαρχῶν, τῶι ἑαυτ[οῦ]
 [εὐ]εργέτη[ι L] κδ' (?).

(b) [Τιβερίῳ Καίσαρι]
 [Θεοῦ υἱῶι Θεῶι (?) Σεβαστῶι]

⁹¹ Dessau, 231; *Eph. Epigr.* viii, 365.

⁹² Rostovtzeff, *Rev. Num.* ii (1898), 82 and 100: a tessera stamped with the name Paulinus; cited by Stuart-Jones, *l.c.*, p. 270.

⁹³ So Collingwood, in *CAH* x, 802, who thus accepts

the chronology of Tacitus (*Ann.* xiv, 31 ff.). The argument for placing the revolt of the Iceni in the year 60 rather than 61 is well set forth by Henderson, *Life and Principate of the Emperor Nero* (1903), 477.

- [ὁ δεῖνα τοῦ δεῖνος, ἀρχιερεὺς]
 διὰ βίου αὐτοῦ καὶ τῶν
 5 διδύμων υἱῶν Δροῖσ(ου) Κα[ίς](αρος)
 Τιβερίου καὶ Γερμανικοῦ Καισά[ρων],
 γυμνασιαρχῶν, τῶι ἑαυτ[οῦ]
 [εὐ]εργέτη[ι L] κδ' (?).

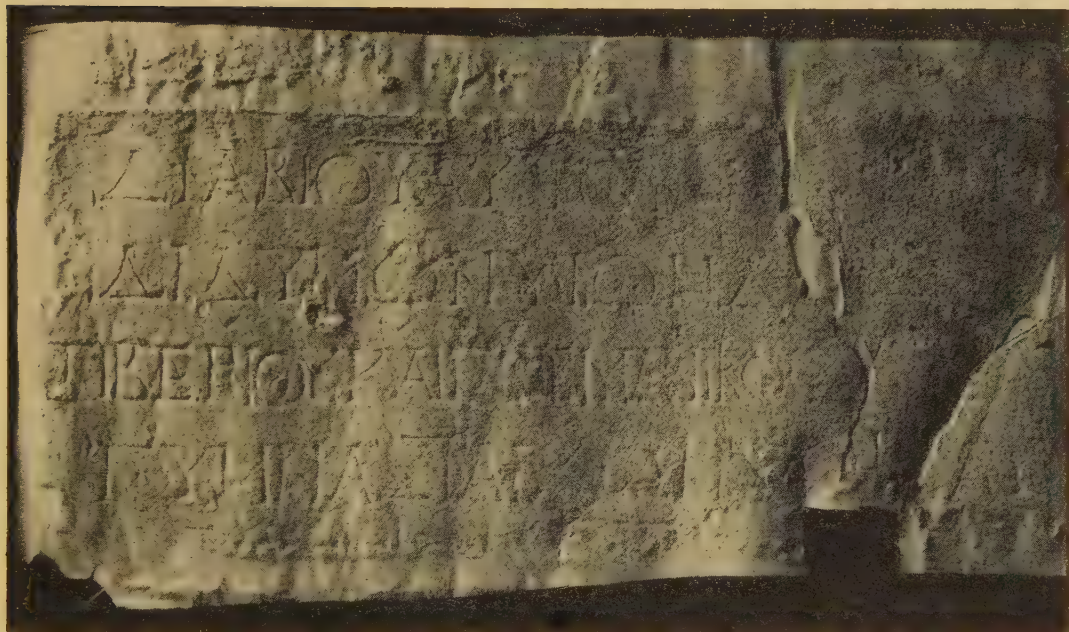


FIG. 4.—IGR iii, 997.

A block of slate-coloured marble, probably cut down in antiquity from an altar to make the pedestal of a statue(?). If this be the case, one of the hidden faces of the stone carries a further inscription. H. 0·245; w. 0·57 m. The weight of the hinge, resting on the lower right corner of the inscribed surface, has splintered this portion of the stone into three large fragments, which however still adhere. To the right, the surface is worn down.

L. 4: apparently complete. After third *upsilon*, an uncut space of one letter, perhaps due to a slight inequality in the stone.

L. 5: after twelfth letter of (*b*), which is certain, lettering faint and difficult. An upright, with the beginning of a transverse stroke as in *rho*, is interrupted by a crack. Thereafter, faint and somewhat questionable traces of *omicron*. *Sigma* and *kappa* are certain, followed by *alpha* in vague outline. Between *omicron* and *sigma*, *iota* is possibly to be inserted, although this would be so

close to *sigma* as to touch the tips of it at top and bottom. There is no indication that the end of this line is palimpsest; but the stone is here so badly worn that the absence of such indication loses significance.

L. 6: over Γαίου καὶ Λουκίου, of which every letter can be traced, Τιβερίου καὶ Γερμανικοῦ has been cut; with *tau* projecting over the left margin, καὶ remaining untouched.

L. 8: lacuna of c. 2 letters after *eta* in [εὺ]εργέτη[ι. Thereafter, a horizontal line 0.06 m. in length, clearly covering the two letters of the date. Of these the tips are probably legible and suggest *kappa delta* (or *alpha*).

The dative case in l. 7, together with the number and relative shortness of the lines, indicates an altar.⁹⁴ In our context this can hardly have been erected to any but an emperor, who in (*a*) will then be Augustus and in (*b*) Tiberius. Γυμνασιάρχων⁹⁵ is to be referred to the subject of the inscription, while διὰ βίου⁹⁶ qualifies [ἀρχιερέως]. Thus in (*a*) Augustus is being honoured by one who is gymnasiarch and also high priest for life of himself and his grandsons. In (*b*) this same man, high priest now of Tiberius and his grandsons, being once more gymnasiarch, alters his earlier inscription to suit the times. The date of (*b*) is between A.D. 19, when Tiberius and Germanicus were born to Drusus, son of Tiberius, and the death of Germanicus in A.D. 23; while in [εὺ]εργέτη[ι we may possibly see a reference to the grant by Tiberius in A.D. 22 of ἀσυλία to the temple of Zeus Salaminios.⁹⁷ For (*a*), the death of Lucius on August 20, A.D. 2 gives the *terminus ante quem*, but the earlier limit is not so easy to fix. On the date at the end of the inscription, beyond the certainty that it consists of two letters, the probability that the first of these is *kappa*, little reliance can be placed. But, if 30 B.C., as marking the legal end of Ptolemaic rule, be accepted as beginning the regnal dating by Augustus,⁹⁸ it at least affords us 9 B.C. as our *terminus post quem*. No specific benefaction of Augustus to Salamis is recorded. It is futile to speculate whether Gaius on his voyage from Samos to Egypt took the opportunity of visiting Cyprus;⁹⁹ or what his

⁹⁴ The dative implies dedication to a god; by extension, to a deified mortal; and so, freely to emperors. There is, however, a Cypriot example of dedication to a proconsul (Hogarth, *Devia Cypria*, 8, no. 1) and to Marcia, wife of Paulus Fabius Maximus (*IGR* iii, 939). The object dedicated can naturally vary from a precious article to an altar or a temple. In the present case, while I find it incredible that a shrine or some similar structure dedicated to the Divus Augustus should be rededicated to Tiberius, I do not feel the same difficulty with an altar in some gymnasium.

⁹⁵ *CIG* and *IGR*: γυμνασιάρχων τῶν - - -

⁹⁶ διὰ βίου regularly follows the noun it qualifies; so in six further occurrences of the phrase in Cyprus. But cf. *IGR* iv, 257, διὰ βίου ἐπέως and *passim*. Of the Cypriot instances it may be noted that three concern priests (Hellenistic), two high priests (Roman), one a ἱερομνήμων (Hellenistic). It is perhaps remark-

able that our high priest should be alive some twenty-five years after the original dedication; but such a priesthood, being acquired by purchase, is an indication of the priest's wealth and pro-Roman sentiment and not of his age.

⁹⁷ Tacitus, *Ann.* iii, 62-3.

⁹⁸ It is presumed that the Donations of Antony to Cleopatra were officially annulled on her death in August 30. But Cyprus in effect must have passed from the hands of Egypt, if not in the months immediately following Actium, certainly by the time of Augustus' advance through Syria upon Egypt in the early summer of 30. It is not known what provision was made for Cyprus before 27, when the island became an imperial province. Cf. also note 16 above.

⁹⁹ Both Pompey (Valerius Maximus i, 5, 6) and Titus (Tacitus, *Hist.* ii, 2-4) called at Paphos on a precisely similar voyage; and Gaius, unlike them,

relations, if any, with the island may have been when in A.D. 1 he found himself at Antioch, as consul and with the *maius imperium*. It may be noted, however, that the failure of our inscription to give Gaius any distinguishing title suggests a period prior to his Eastern mission; while the tone of the whole is in keeping with the official displeasure towards Tiberius, then in ambiguous exile at Rhodes. Salamis in the person of this high priest is at pains to show, albeit tactfully, that her sentiments are correct. The altar stood probably in one of the several gymnasia of the city, and as such was rather a secular than a religious document. And when some twenty-five years later it was noticed that few alterations¹⁰⁰ were needed to bring it up to date; that the word διδύμων, somewhat poetically used of Gaius and Lucius (the Twain, with a hint of the heroic, if not of the divine) could apply quite literally to Tiberius and Germanicus; indeed, that the effacing of the names of Gaius and Lucius was sound diplomacy—there can have been few scruples about these alterations.

What changes, if any, were made in the date, I do not pretend to know. Tiberius' regnal years in Cyprus ran from the death of Augustus, so that here we would definitely expect a single figure.¹⁰¹

(10) A Private Inscription from Palaepaphus: *BCH* iii (1879), 169, no. 15.

Discovered in 1878 by Beaudouin and Pottier, in a field to the W. of the temple ruins, on a pedestal of pink marble. Not mentioned by Gardner, Hogarth and James, the excavators of Kouklia, nor by Oberhummer; and presumably by 1888 it had perished. The edd., whose accuracy is admirable, made little of their fragment; but two inscriptions subsequently discovered at Kouklia permit a fuller restoration. These are (from my squeezes):

JHS ix (1888), 259, no. 3:

(a) Ἀφροδίτη Παφίαι·
Ἰουλίαν Σακρικόλαν, τὴν
θυγατέρα Γαίου Ἰουλίου Κρίσπου
καὶ Λικιννίας Μοδέστας,
5 Λικιννία Ἀγαπωμένη, ἡ μάμμη.

(b) Ἀφροδ[ίτη] Παφίαι·
Γαίον Ἰούλιον Ποταμῶνα,
τὸν υἱὸν Γαίου Ἰουλίου
Ποταμῶνος καὶ Λικιννίας
Ἰσούλλης?, Λικιννία
Ἀγαπωμένη, ἡ μάμμη.

was admittedly on a tour of inspection. A fragmentary inscription from Soli (not included, I think, in *CIL*) is restored by its editor (Tubbs, *JHS* xi (1890), 75, no. 22) to Gaius: [CAI]O . CAESARI . D . A[VG . F] - - \ SOLIORVM.

¹⁰⁰ In all Cypriot inscriptions which refer to Augustus during his lifetime, he is a god: *IGR* iii, 932, 939, 940, 973, 984 (below, note 115) 994; *REG* xvii (1904), 212. Not so with Tiberius or any of his successors. Cyprus, which down to Actium had for

centuries worshipped 'the King, Ptolemy, the God,' took easily to the Divus Augustus. The difference between a princeps and their former rulers (which may not have been immediately obvious to the Cypriot cities) was a lesson to be learnt. If Θεῶι is to be retained in the altered text, however, it may be paralleled by *IGR* i, 659; iv, 257.

¹⁰¹ No account was taken of his co-regency with Augustus in computing his regnal years: *IGR* iii, 933.

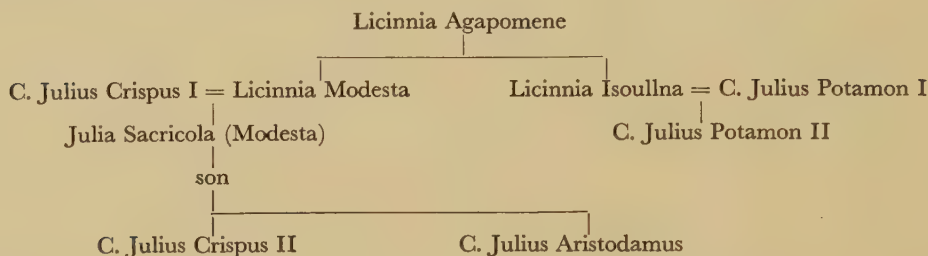
JHS ix (1888), 250, no. 106:¹⁰²

Ἰουλία Σακρικόλα
Μοδέστα
Γάϊον Ἰούλιον
Κρίσπον

τὰ τοῦ υἱοῦ
τέκνα
Γάϊον Ἰούλιον
Ἀριστόδαμον.

In l. 5 of *JHS* ix, no. 3, (b) I read ΙΣΟΥΛΛΗΝΑΣ for the ΙΣΟΥΛΛΙΙΑΣ of edd. and their variations of this: ΙΣΟΥΛΛΑΡΙΑΣ, ΙΣΟΥΛΛΙΡΙΑΣ and ΙΣΟΥΛΛΑΠΑΣ.¹⁰³

The following is the *stemma* of the family:



Both, from their lettering,¹⁰⁴ are Julio-Claudian: *JHS* ix, 259, no. 3 may date from the first half of Augustus' principate; *JHS* ix, 250, no. 106 may be as early as the last years of Tiberius. In Licinnia and her daughters we may see members of the Italian trading colony, already established at Paphos under the Republic¹⁰⁵ and probably originating from late Ptolemaic times.¹⁰⁶ The husbands of Licinnia's daughters are men recently en-

¹⁰² There is no trace of the [Ἀφροδίτη Παφί]αι of edd.; which, as they show it, spoils the symmetry of the inscription.

¹⁰³ The inscription is very faint, but, apart from this remarkable name, without difficulty. Here the spacing makes it clear that no letter is missing before the initial *iota*; the second letter is damaged, so that it may be either *eta* or *sigma*; the fifth and sixth letters, as there is no trace of a cross-stroke, are both *lambda* rather than *alpha*; the seventh is an apparently intact *nu*, but a horizontal stroke, which appears above it but is probably casual, makes it impossible to rule out *pi*; the eighth, apparently *alpha*, but vague upright lines make *eta* a possibility. I can find nothing to parallel the name Isoullna, which Prof. Rose suggests to me may be a pet-name derived from Isis. Mr. Tod writes, however, 'Ἰσουλ(ά)να seems to me much more likely, whether derived from Isis or from the Latin *insula*.' For Ἀγαπωμένη, not recognised by edd. as a name, cf. *MAMA* iv, no. 358, Ἀγαπ[ώ]μενος. For μάμη in epigraphy, *SEG* vi (1932), no. 666.

¹⁰⁴ But for the names and the square-topped *rho* (note 85 above), *JHS* ix, 259, no. 3 might be Hellenistic. In the second inscription the middle stroke in *epsilon* is not contiguous—a sure sign of later date.

¹⁰⁵ *BCH* li (1927), 143, no. 4, now in the police station at Ktima. I believe this inscription to be Republican.

My reasons for so thinking I shall give elsewhere.

¹⁰⁶ An Italian trading community was established at Alexandria as early as the reign of Euergetes II (*OGI*, 133, 135). As for Cyprus, the bilingual inscription, *JHS* ix (1888), 234, no. 28 (*IGR* iii, 965; *CIL* iii, 12101; Dessau, 7208) from Palaepaphus, may well be late Hellenistic. The Greek lettering seems to me definitely of that period; while the fact that the stone has been re-used—it also carries *JHS* ix (1888), 234, no. 25 of (it would seem) the early second century—is significant. I have noted sixteen instances of a Roman and a Hellenistic inscription cut on the same stone, but none where both are Roman. These figures do not include several cases where the earlier text has been too thoroughly defaced to be legible. Edd. find 'a considerable space between the Latin and the Greek'; but this in fact is no more than the normal spacing of the lines. While they consider the Greek 'regular and well cut,' the Latin 'has a later appearance.' I am inclined to think that the Latin and the Greek are contemporaneous and definitely Ptolemaic rather than Republican. My squeeze gives me:

[C. R. QVI PA]EIII·NEGOTIANTVR
Παφία
[οἱ ἐν] Πάφῳ Ῥωμαῖοι.

franchised, probably by act of Julius Caesar; Crispus perhaps a freedman of Italian origin, Potamon a member of the local aristocracy. A Potamon of Paphos under Ptolemy Soter II, after a distinguished municipal career, became deputy-governor of the island.¹⁰⁷

BCH iii, no. 15, in which the names Crispus, Potamon and Licinia (sic) occur, must concern this same family; and we may accordingly restore:

[᾿Αφροδ]ίτη[ι Π]αφίαι·
[Γάτου ᾿Ιουλίου] Κρίσπου καὶ (Λ)ι[κινίας (?)]
[υἱόν, Γάϊον ᾿Ιού]λιον (Π)ο(τ)αμῶ[να] or [Μοδέστας (?)] υἱόν κ.τ.λ.]
Λικινία (sic) ἡ [μάμμη (?)].

I take this to mean that the elder Licinnia erects a statue to a grandson by her daughter Licinnia Modesta; who, not being Modesta's eldest son, has been named Potamon after his uncle by marriage.¹⁰⁸

(11) A Statue of Livia at Palaepaphus: *JHS* ix (1888), 242, no. 61.

This inscription, excavated at Kouklia in 1888, I was unable to find either in 1936 or on subsequent visits. Described by edd. as a 'long pinkish block, much worn, Large letters.' They read:

ΛΙΟΥΙΑΝΘΕΑΝΝΕΑ

and restore (ineptly):

Εἰ]λί(θ)υιαν θεὰν Νέα

for the obvious:

[Σεβαστή Πάφο]ς (?) Λιουίαν Θεὰν Νέα[ν ᾿Αφροδίτην (?)].

In an inscription so brief, the dedicator could readily be omitted.¹⁰⁹ Edd., however, not merely assume letters missing both to right and left, but show a horizontal stroke at the beginning of their text, which in the context can belong only to *sigma*. We have seen that the title of Paphos after 15 B.C. was Σεβαστή Πάφος; and our inscription from its deification of Livia can hardly be earlier than this date.¹¹⁰ Nor is it later than A.D. 14, when, adopted into the *gens Julia* by the will of her husband, Livia became Julia Augusta. In the East, Livia was freely worshipped as the New Hera and the New Demeter, and at Assos as Aphrodite.¹¹¹ At Paphos, therefore,

¹⁰⁷ *OGI* 164, 165.

¹⁰⁸ Edd.: l. 2, at end: ΔΙ; l. 3: ΛΙΟΝ. ΙΟΙΑΜΩ. Between the words of l. 2 they show uncut spaces of two or three letters length, but l. 3 with no such gaps. If they are correct in this and the inscription consistent, there may have been sufficient room in l. 3 for the inclusion of [Μοδέστας(?)].

¹⁰⁹ For the omission of the dedicator in short inscriptions, *JHS* ix (1888) 232, no. 18; *JHS* ix (1888), 249, no. 99 (*Archiv. f. Pap.* xiii, 1938, 31⁴); in longer inscriptions, *OGI* 174; *IGR* iii, 940; possibly

IGR iii, 984 (note 115 below). All are inscriptions on statue bases.

¹¹⁰ Under her statue at Salamis, Livia is simply Λιβίαν τὴν γυναῖκα τοῦ | Αὐτοκράτορος Καίσαρος | [Θεοῦ υἱοῦ Θεοῦ Σ]εβ[α]στοῦ. Cf. note 115 below. The bulk of the datable inscriptions in which Livia is deified are later than A.D. 14.

¹¹¹ *IGR* iv, 257. In the E. she was often worshipped under the name of the local goddess (Charlesworth in *CAH* x, 611).

Νέα[ν Ἀφροδίτην] is a most tempting restoration. Whether Σεβαστήν is to be included at the end, is debatable; it is omitted because (1) with its 'large letters' the line is already long, (2) its proper position is after Λιουίαν, (3) it is often absent with the titles Νέα Ἡρα and Νέα Δημήτηρ.¹¹²

(12) Statues of Tiberius and Julia at Palaepaphus: *JHS* ix (1888), 253, no. 116 (*IGR* iii, 943).

I failed to find this fragment at Kouklia. Edd. describe it as a 'rough stone built into a later wall. Broken right and bottom.' They restore Τιβέριον | Νέρωνος Κλ[αύδιον καὶ] | . . . ν τὴν τοῦτο[ν γυναῖκα] and are followed in this, somewhat meekly, by *IGR*.^{112a} The general tenor of the inscription seems to be as follows:

Τιβέριον [Κλαύδιον Νέρωνα],
 Νέρωνος Κλ[αυδίου καὶ Λιουίας υἱόν (?)],
 [κ](α)ὶ τὴν τοῦτο[ν γυναῖκα Ἰουλίαν]
 [Θεοῦ Καίσαρος Σεβαστοῦ θυγατέρα].

The *JHS* text at the beginning of l. 3 shows, after a lacuna of one letter, a *nu* minus its left hasta. This may readily be emended to [κ](α)ί.

As thus restored,¹¹³ the inscription concerns Tiberius before his adoption in A.D. 4, after and probably on the occasion of his marriage to Julia in 11 B.C. It would seem that Cyprus was not backward under Augustus in honouring the imperial house. At Palaepaphus were statues of Livia, of Julia as the wife of Agrippa, of Marcia *consobrina* of Augustus;¹¹⁴ at Salamis, a statue of Livia,¹¹⁵ an altar to Augustus; at Lapethus were celebrated ἐπινίκια for Actium,¹¹⁶ while to Augustus himself must be ascribed the inscription *IGR* iii, 932. This is an impressive total when compared with the paucity of honorific inscriptions to subsequent emperors.¹¹⁷

(13) The Priestess Rhodokleia: *JHS* ix, 254, no. 119.

Edd. in restoring this fragment find in ΔΡΧΙΕΡΕΑΡΟΛ of l. 3 a 'high priest of Rhodes'; and for this remarkable title refer to 'ἀρχιερέα τῆς Ῥόδου in

¹¹² Since Livia became Augusta *officially* only after the death of Augustus.

^{112a} But *IGR* has Τιβέριον . . . | κ.τ.λ.

¹¹³ Cagnat, by the inclusion of this fragment in *IGR*, presumably considers it to be on a 'high level.' The presence of Νέρωνος in l. 2 seems to me to make this certain; for I do not see how this cognomen could find its way to a recent recipient of the *civitas*. For the omission of the dedicator, cf. note 109 above; but the inscription as here restored may very well be incomplete.

¹¹⁴ No. 11 above; *IGR* iii, 939 and 940.

¹¹⁵ *IGR* iii, 984, now lost. *JHS* xii, 176, no. 5 shows that there is sufficient space in the 4th line to restore, quite normally, [Θεοῦ υἱοῦ Θεοῦ Σεβ[α]στοῦ. Cf. note 100 on p. 225.

¹¹⁶ *REG* xvii (1904), 212 = *SEG* vi (1932), no. 837. To the above may be added *IGR* iii, 973 from Amathus, now lost (perhaps an early milestone) and *JHS* xi (1890), 75, no. 22 from Soli. A High Priest of Augustus for all Cyprus is known from *IGR* iii, 994 from Salamis.

¹¹⁷ Excluding milestones and those inscriptions where the emperor's name is used solely as a date, the figures are: Tiberius, 4; Gaius, 1 (unpub.); Claudius, 1; Nero, 2; Titus, 2 (one unpub.); Domitian, 1; Nerva, 2; Trajan, 4 (two unpub.); Hadrian, 2; Pius, 1 (unpub.); Marcus and Commodus, 2; Septimius Severus and Julia Domna, 3 (one unpub.). Add to this, a month Tiberieios at Paphos and a mention of Domitian's birthday festival (unpub.) and the evidence is complete.

an inscription from Larnaca, unpublished.' This second inscription has long since been published by Hogarth, who without hesitation reads ἀρχιερέα τῆς Ῥώ[μης].¹¹⁸ It remains therefore to reconsider *JHS* ix, no. 119. Here the name Ῥοδόκλεια, already known from the priestess in *IGR* iii, 951, is to be restored; and for the inscription as a whole the following :

(squeeze) [᾽Αφροδείτηι Π]αφίαι·
[- - - -] Σ ἀρχιερώς (vac ?)
[- - - -] ἀρχιερέα, Ῥοδ[όκληια]
[- - - -] υἱὸν ἐξ[αιρετόν ?].

Too much has been lost to admit of further restoration.¹¹⁹ It is, nevertheless, probable that our inscription deals with a family which for at least three generations, during (it would seem) the latter part of the first century and the beginning of the second, held the High Priesthood of Paphian Aphrodite. The *stemma* of this family is given by *IGR* iii, 950 and 951:

Teukros

Claudia Appharion ¹²⁰ (High Priestess of Demeter for All Cyprus)

C. Ummidius Pantauchus (High Priest, Gymnasiarch of Paphos)

C. Ummidius Quadratus Pantauchianus (High Priest) = Claudia Rhodokleia (High Priestess)

C. Ummidius Pantauchus Quadratianus (High Priest)

¹¹⁸ *Devia Cypria*, 109, no. 28: [ἡ πόλις ἡ Κιτιέων (?) | τὸν δεινὰ τοῦ δεινός] | ἀρχιερεὶα τῆς 'Ρώ[μης] | ἐν ἀγωνοθέτ[ῃ τῇ] | πενταετηρίᾳ κα[τά] τὸ ν' Ἰ' Ἰ' Ἰ' οὐ πρῶ[τον] | τὸ ἄλμυμα (sic) ἐτέθ[ῃ]. We need waste no time on Hogarth's explanation of the date ('the eighth period of five years since the games were established'), since the inscription belongs to an eighth regnal year, if we may trust Hogarth's lettering, rather in the earlier than the later half of the first century. These quinquennial games, like those of Salamis, were known outside Cyprus, on the evidence of *IGR* iii, 1012 (dated to A.D. 221). The Actaeon games of Lapethus have already been noted: *REG* xvii (1904), 212 = *SEG* vi (1932), no. 837. Cf. further, Cesnola, *Cyprus*, 431, no. 44 = Myres, *Handbook of the Cesnola Collection*, 320, no. 1905 and p. 548, for a late agonistic inscription from Citium, the only one of this type which Cyprus can show. Hogarth's inscription has a further point of interest. Domaszewski, *Abhand. z. röm. Religion*, 234 ff., comments upon the non-inclusion of Roma in the emperor-worship of Cyprus. Here is his answer. Cf. also *Trans. Soc. Bibl. Arch.* iv (1876), p. 42 as restored in note 10 above.

L. 2: after final *sigma*, an uncut space; but whether the line is complete or not, cannot be decided. The phrase εὐχόμενοι εὐαγγελίον is found in an unpublished inscription from Larnaca. For the form of the present inscription, cf. the fragment LBW 2804 which may still be seen at Kouklia: -- ἀρχι[ερέως | -- ἀρχι]ερέα | -- συγγενῇ; and which, save to the left, seems to me complete.

¹²⁰ For this name: Ἀμφάριον = Ἀφφ-άριον, a variant of Ἀππάριον (Tod), for which cf. *CIG* Index, p. 71.

¹²¹ ἀρχιερεύς unqualified at Palaepaphus is to be referred, not to the imperial cult (note 10 above), but to the local worship of Aphrodite. And, with few exceptions, during the Roman period the word ἀρχιερεύς (and ἱερεύς(?)) at Palaepaphus is always unqualified. Whether Claudia Rhodokleia, however, was *High Priestess of Aphrodite* is a very different matter, on which I suspend judgement: no priestess of Aphrodite of Paphos is known to me either from literature or from epigraphy. But it is quite possible that the Rhodokleia of the present inscription was also a High Priestess. An exception may be given by an enigmatic inscription from Palaepaphus, now lost, of which the lettering points to the second century (cf. note 85 above). This is *JHS* ix (1888), 249, no. 101. Here, if the edd. are to be trusted, the Hellenistic phrase of ἱερεῖς τῆς Παφίας Ἀφροδίτης seems to recur; and, if this be so, the inscription as a whole may have read:

[οἱ ἱερεῖς τῆς Παφίας Ἀφρο]δίτης (?)
 Διονυσό[δωρον (?) τοῦ δεινός (?) τοῦ] Διονυσίου,
 Κινύρα[ρχον, τὸν εὐεργέτην (?) τοῦ δή]μου, φιλοτειμίας
 καὶ φι[λαγαθίας ἔνεκεν], τὸν πατέρα.

The date which I give to this is supported by the late orthography of φιλοταιμίας. Possible implications and the title Κινύραρχος I shall discuss elsewhere.

With this family our inscription is doubtless to be associated; for it also concerns High Priests of Aphrodite¹²¹ and also mentions a Rhodokleia. But in it Latinised names are notably absent; and this suggests that Rhodokleia and Claudia Rhodokleia are different persons and that the nameless High Priests, father and son, belong to an earlier generation.

(14) An Antonine Fragment from Salamis: *JHS* xii (1891), 194, no. 50 (*IBM* iv (1916), no. 984).

Of this brief fragment the third line, which survives only in the tops of five letters, is *pace* edd. and Marshall, intelligible:

(squeeze)	μεγιστ[- - -
	σεβαστ[- - -
	Ἰαρμεν[ιακ - -

Armeniacus is properly used of L. Verus from 163 to 169; of Marcus, from 164 to 169; improperly, of Marcus from 169 to 177, of Marcus and Commodus together and (very rarely) of Commodus alone. The fragment may now be added to the few documents of the Antonine period which Cyprus can show.¹²²

(15) The Milestone of Macrinus—a Correction: *JRS* xxix (1939), 190, no. 2 (Hill, *o.c.*, 236; 255, no. 25).

With a squeeze taken in the field, I failed to reach the ends of lines 10 and 11. In the winter of 1938–9 the milestone was removed to the Cyprus Museum, where, in the following summer, I was able to correct this failure and emend my reading of the inscription in one important detail.

In l. 10, where I read Π. Κ[λαν]|δίου, I find that Τιβερίου was inscribed in full, what appears as a certain *pi* in isolation being in fact *tau iota*; the letter following, not *kappa* but *beta*.

In l. 11, for πατὲρ (sic) καὶ ἀνθυπάτ[ου], I now read: Πατερκλιανοῦ ἀνθ(υπάτου).

Tib. Claudius Attalus Paterculianus, *legatus Aug. pr. pr.* for Thrace at the outset of the reign of Commodus and *procos.* of Cyprus in 217–8,¹²³ was doubtless a Pergamene; for the C. Claudius Attalus Paterculianus, who was consul it would seem under Septimius and subsequently governed Bithynia and Pontus, was a native of Pergamum.¹²⁴

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¹²² *IGR* iii, 929; probably *JHS* xxviii (1908), 198, no. 31 = *SEG* vi, no. 812, from Paphos, a fragment of an architrave, now in the police station at Ktima; *IGR* iii, 946; 931 = No. 2 above; and an unpublished dedication to Pius from Soli. For the title *Armeniacus*, cf. Cagnat, *Épigr. lat.*⁴, 199, 200, 202.

¹²³ *JRS* xxix (1939), 190; *PIR*² ii, 172, no. 795.

¹²⁴ *PIR*² ii, 173, no. 800; probably a brother of our proconsul. My original failure to recognise the name Paterculianus and still more so my misreading of the last three letters of l. 11 must be ascribed to carelessness.

NOTES ON AN INSCRIPTION FROM CHIOS.

In *BSA* xli (1940-5) 45 f. Mr. D. W. S. Hunt publishes without commentary the text of a Chian inscription removed from the wall of the Kastro of Chios and now in the courtyard of the Museum of Chios. I have been working for a long time on this inscription and shall publish it shortly, together with other unpublished inscriptions of Chios. As my reading differs from Mr. Hunt's I think it useful to notice here those points at which in my opinion it has not been read correctly:

Ll. 13 ff. *Read* . . . δεδόσθαι [δὲ τοῖς δικασταῖς | κα]ὶ ἀδοτοῖς καὶ ἐγγόνοις π[ροεδρίαν ἐν τοῖς | ἀγ]ῶσιν . . .

L. 18. *Read* ἐξάγωσιν ἐπὶ κτή[σει • καὶ γῆς ἔγκτησιν . . .

Ll. 22 f. *Read* . . . τὸ γ κήρυκα Διογυ[σίοις τόδε τὸ κήρυ] | γμα. ὁ δῆμος ὁ Χίων [στεφανοῖ τοὺς . . .

Ll. 25 ff. *Read* . . . τῆς εἰς ἑαυτὸν χρυσῶι | σ]τεφάνωι ἀφ' ἑκατὸν [δραχμῶν • τιμᾷ δὲ | πρ]οξενίαι . . .

Ll. 30 f. *Read* τοὺς πρυτάνεις τοὺς ἐνεστῶτας, [οἱ καὶ ἀναγραψάν]των . . .

Ll. 37 ff. *Read* . . . ἐπὶ | μεληθῆ]ναι δὲ, ὅπως ἐπὶ τριήρους κ[ομισθῶ | σιν . . .

Ll. 40 f. *Read* . . . καὶ οἱ λ[οιποὶ ὁ | μοίως π]ράττωσι . . .

In ll. 20 f. Mr. Hunt supplies: χάριτας ἀποδι|δ]όναι τοῖς δικαίοις [ἀνδράσιν ἀξίας. On the stone I read ΔΙΚΑΙΟΥΜ with certainty. I think that we can supply: χάριτας ἀποδι|δ]όναι τοῖς δικαιοῦμ[ένοις αὐτῶν (*i.e.* τῶν χαρίτων), although this phrase is not met with in inscriptions.

Mykonos.

N. M. KONTOLEON.

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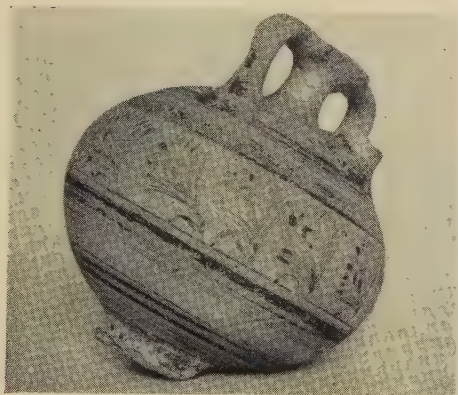
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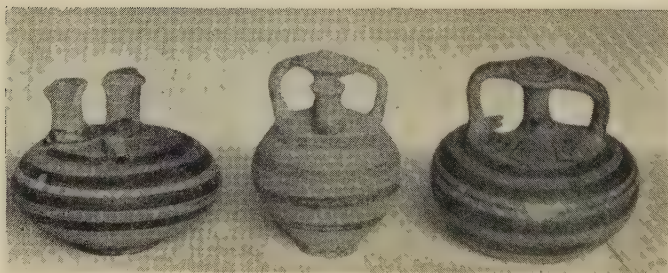
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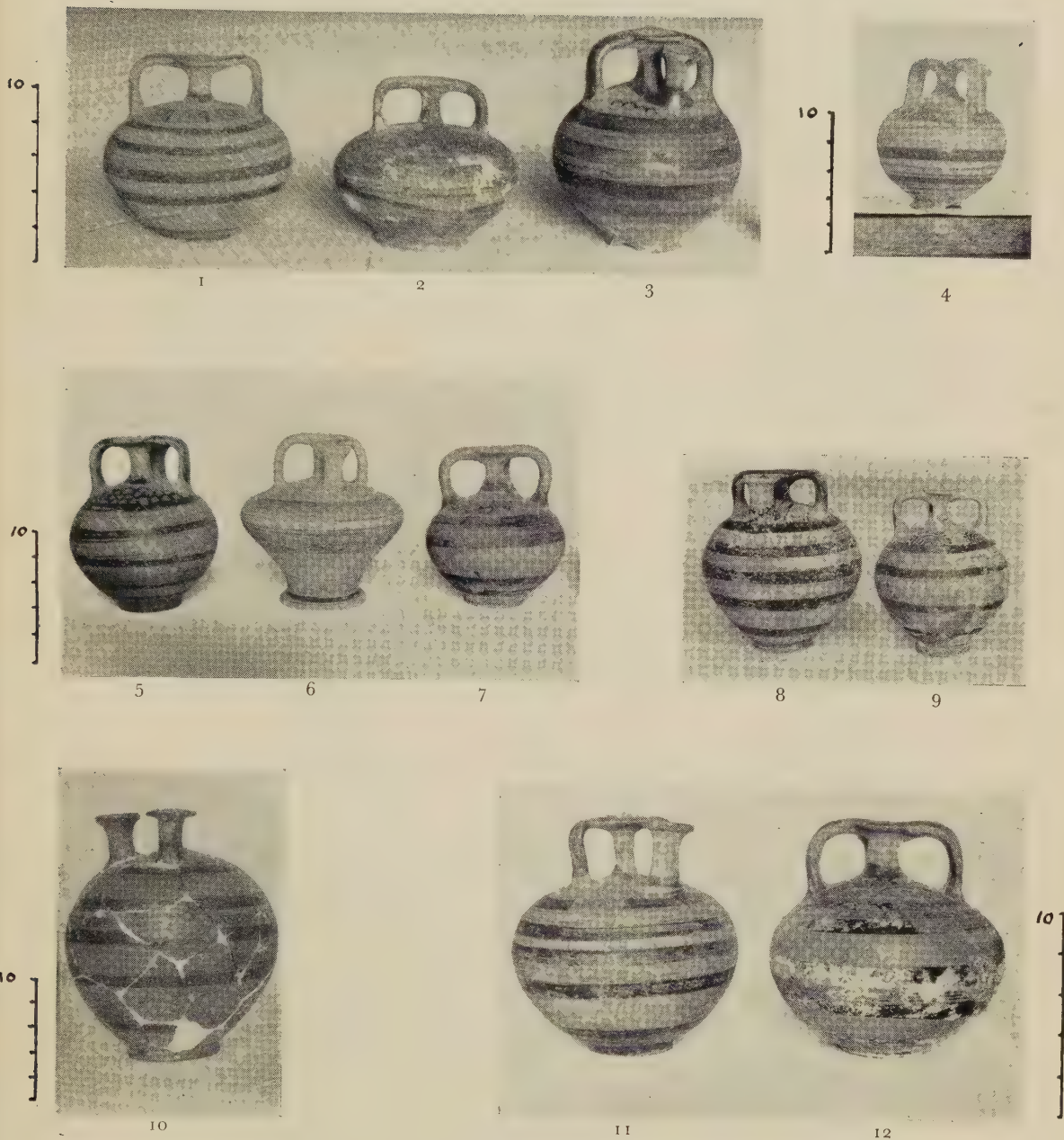
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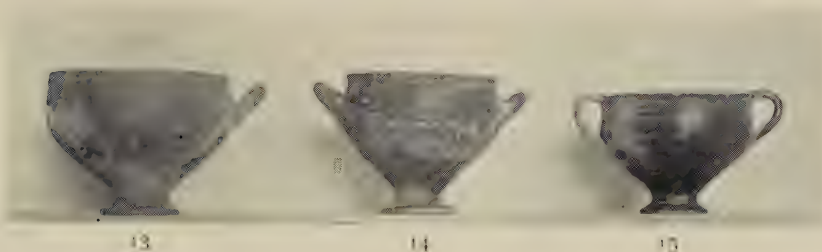
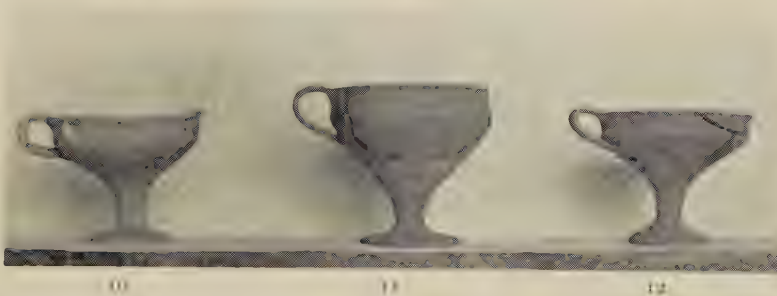
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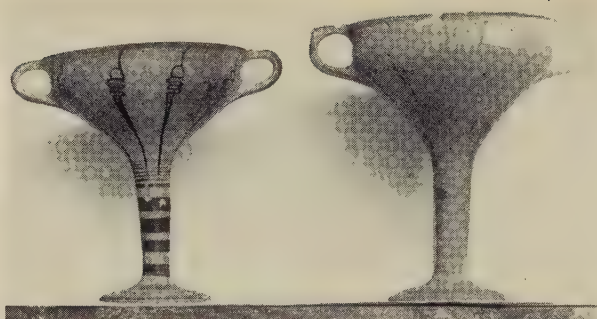


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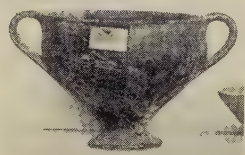
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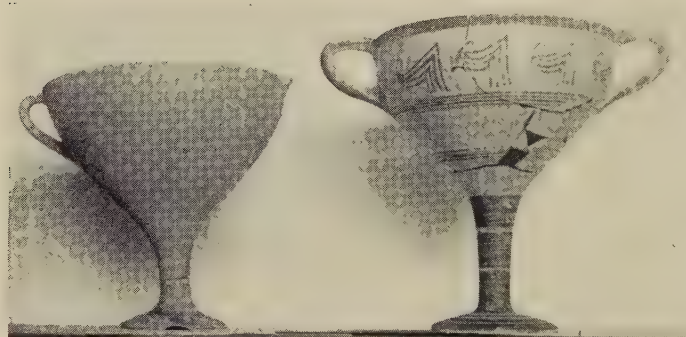


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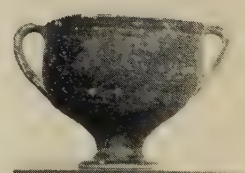
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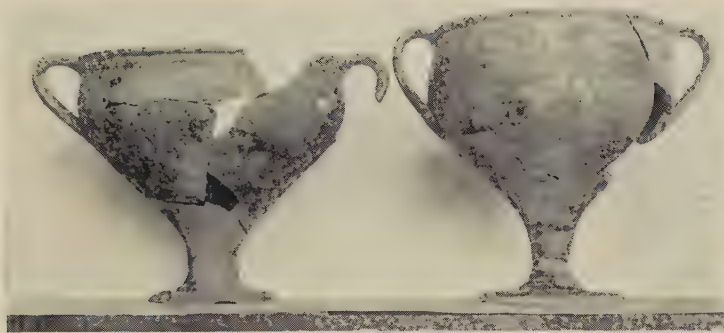
12



1

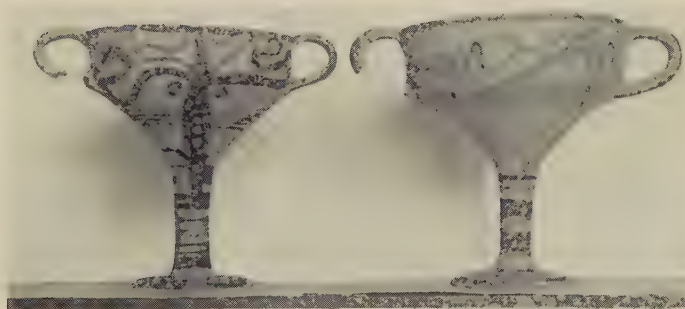


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THE MYCENAEAN POTTERY OF ATTICA: KYLIKES FROM PIKERMI.
(1 FROM KOPREZA.)



1

2



3



4

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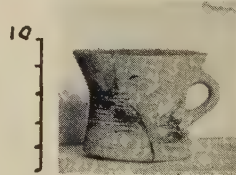


6



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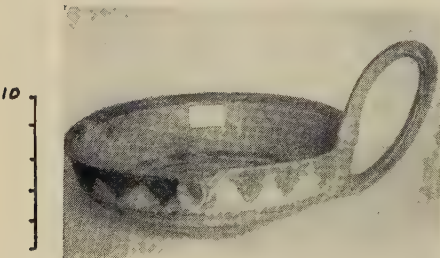
8



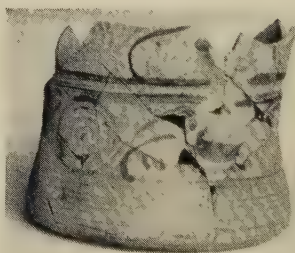
9



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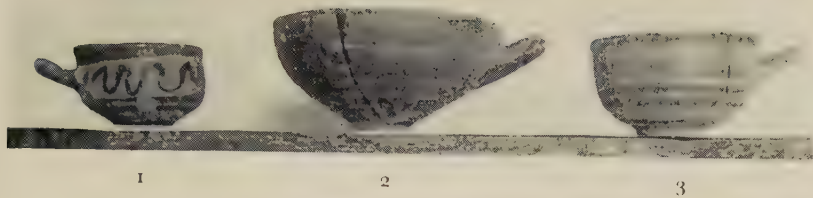


12



13

THE MYCENAEAN POTTERY OF ATTICA: CUPS AND TANKARDS.

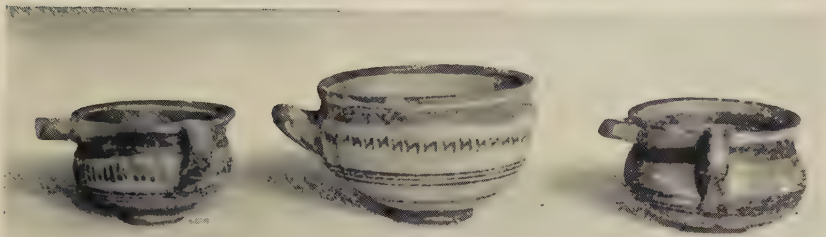


1

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3

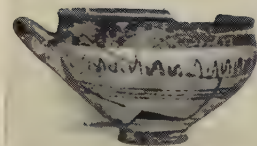
10



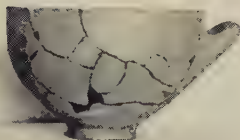
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5

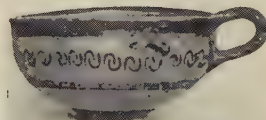
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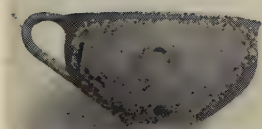
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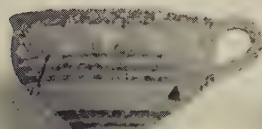
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9



10

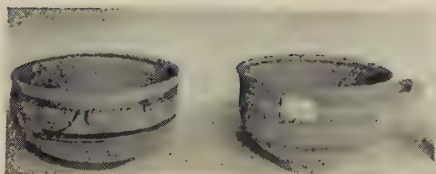


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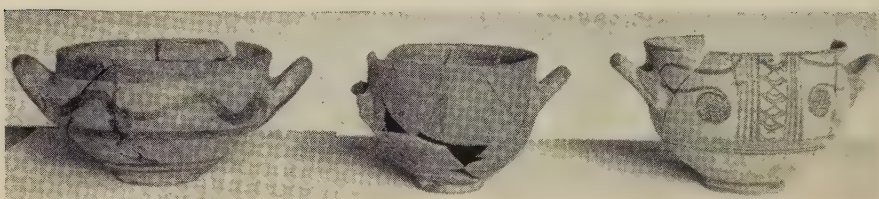
THE MYCENAEAN POTTERY OF ATTICA: DEEP CUPS.



1



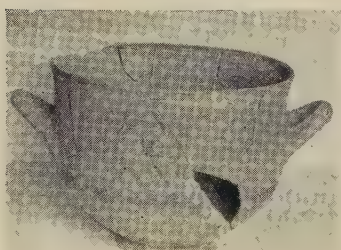
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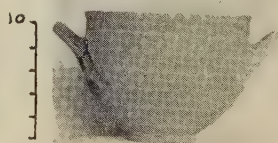
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4

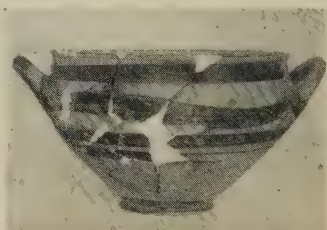
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6



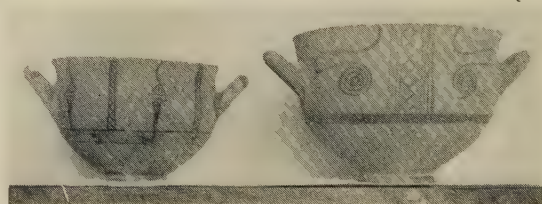
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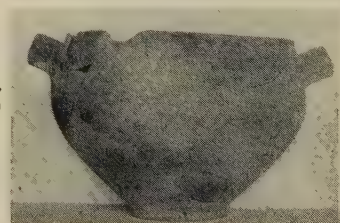
11



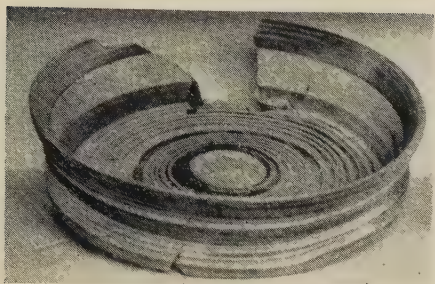
12



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14



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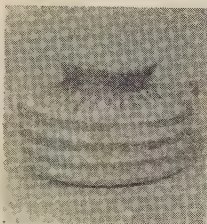
5



6



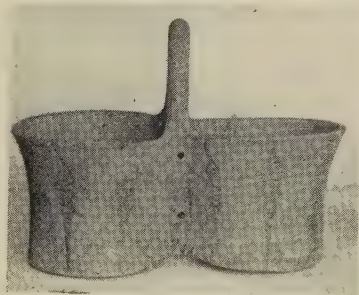
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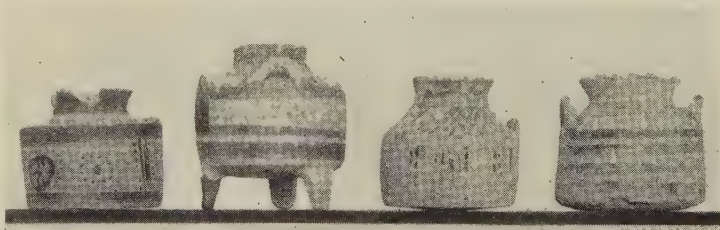
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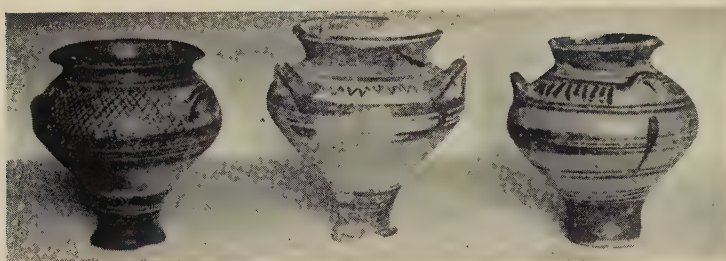
11

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14

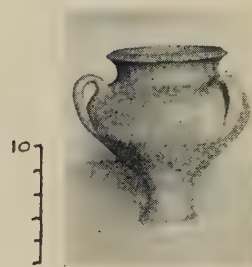
THE MYCENAEAN POTTERY OF ATTICA: ALABASTRA AND PYXIDES.



1

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3

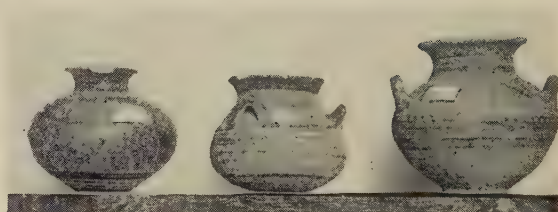


4



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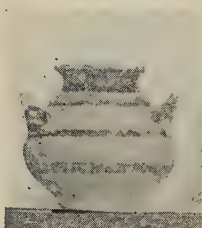
6



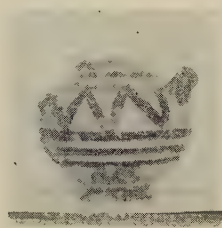
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8

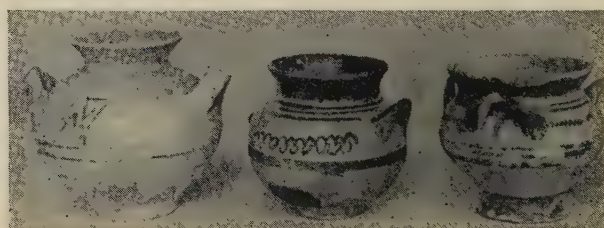
9



10



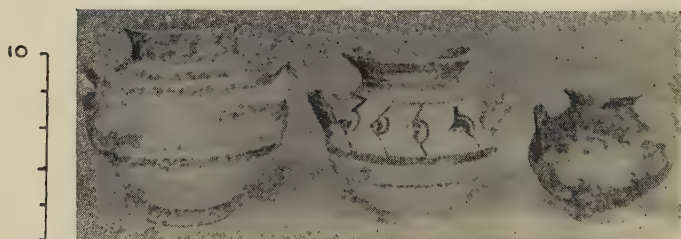
11



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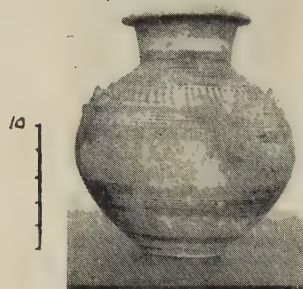
16

17



18

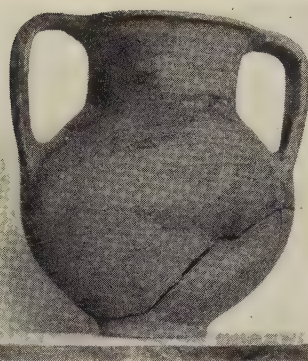
THE MYCENAEAN POTTERY OF ATTICA: JARS.



1



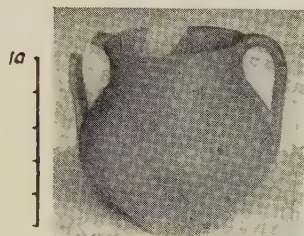
2



3



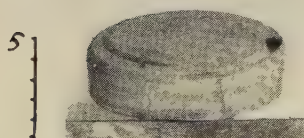
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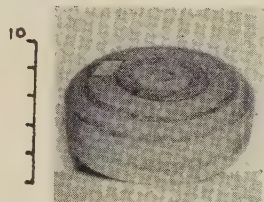
5



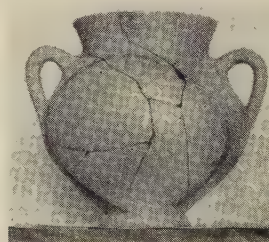
6



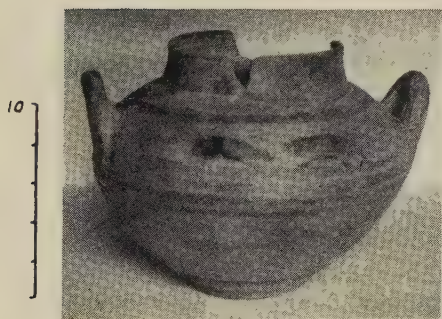
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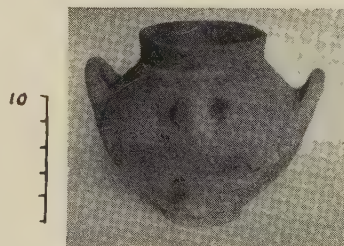
8



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11



THE MYCENAEAN POTTERY OF ATTICA: JUGS.



1



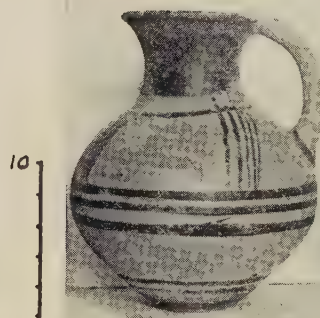
2



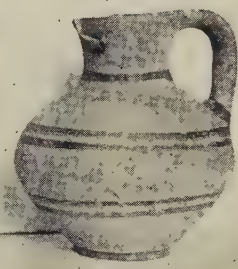
3



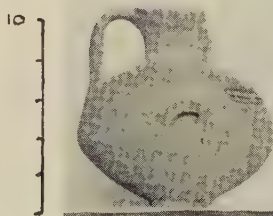
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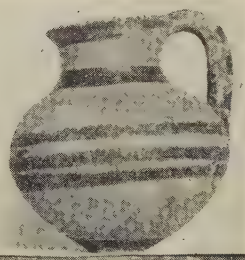
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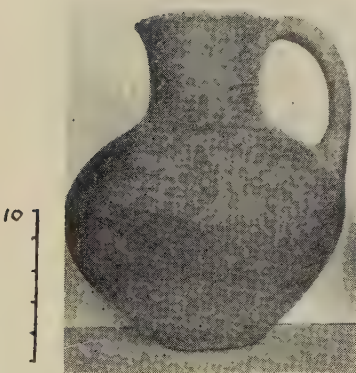
6



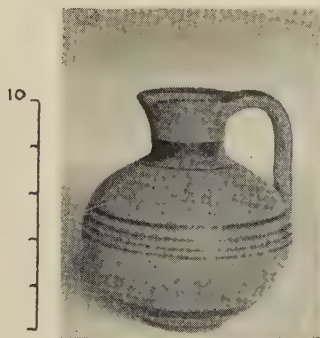
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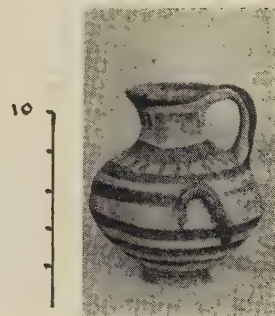
8



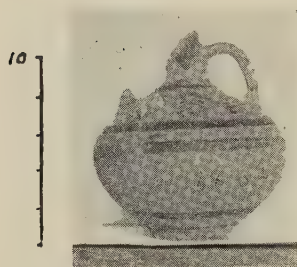
9



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11



1



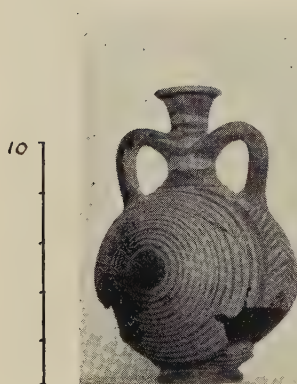
2



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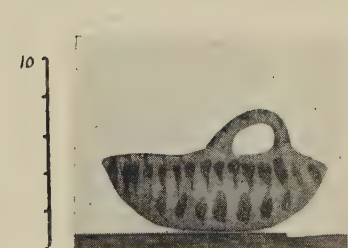
8



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13



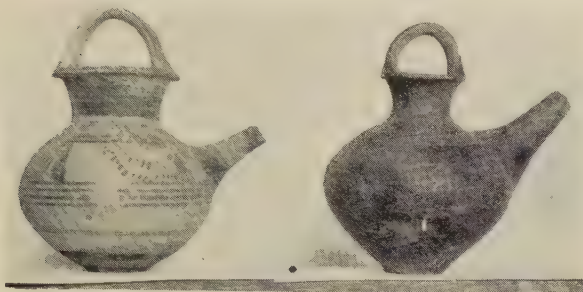
1

2

3

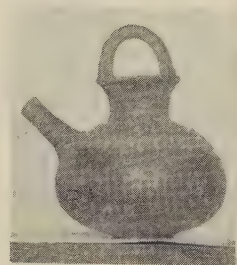


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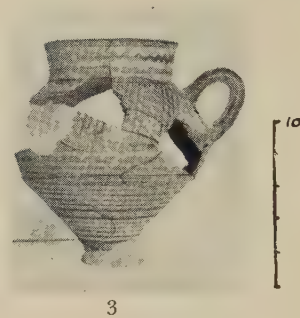
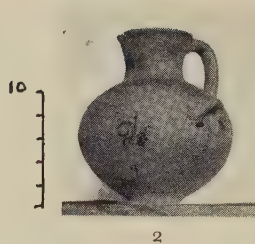
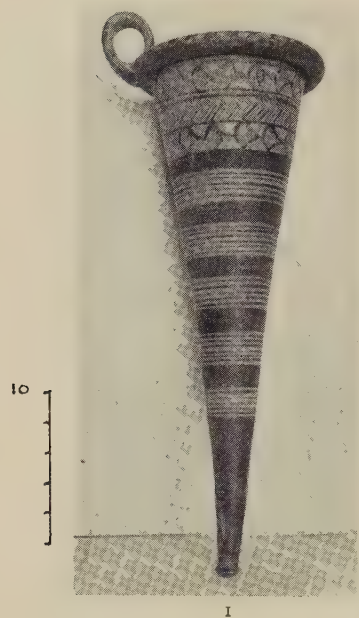


8



10

THE MYCENAEAN POTTERY OF ATTICA: DRINKING-JARS AND ASKOS.



THE MYCENAEAN POTTERY OF ATTICA: RHYTA AND OTHER RITUAL VASES.



a



b

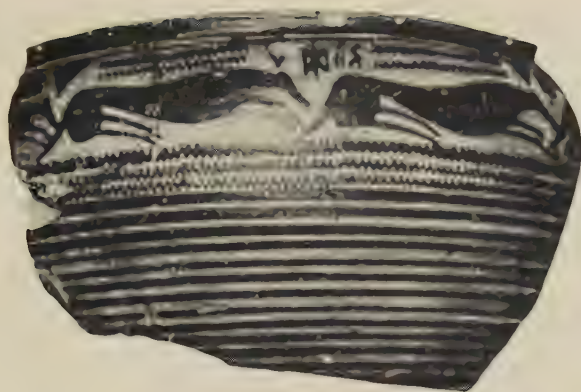


c

TERRACOTTA VOTIVE SHIELDS FROM TIRYNS.



AMPHORA IN BENAKI MUSEUM, ATHENS.



(a) ATTIC GEOMETRIC VASE-FRAGMENT. BONN INV. 15.



(b) ATTIC GEOMETRIC AMPHORA. ATHENS, 897.



ATTIC GEOMETRIC AMPHORA, CLEVELAND, 1927. 27. 6.



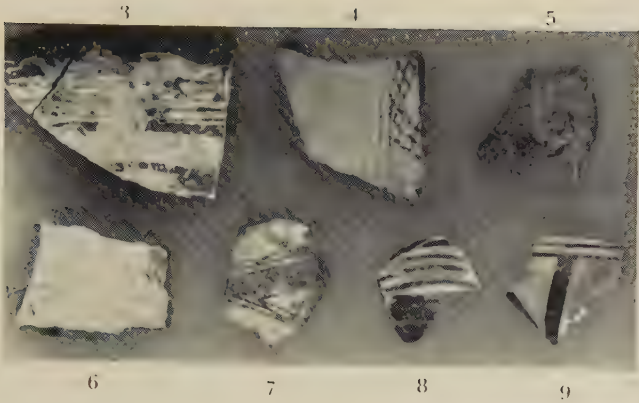
(a) DETAIL OF PROTOATTIC HYDRIA IN VLASTO COLLECTION.



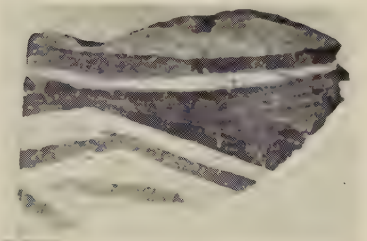
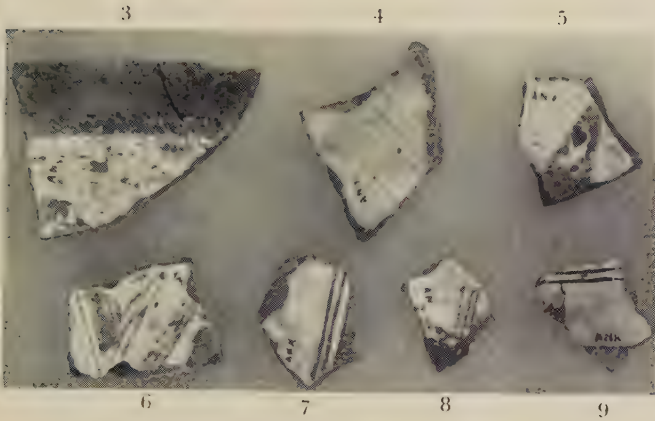
(b) ATTIC GEOMETRIC AMPHORA. ATHENS, 894.



THE CAVE OF HAGIOS NIKOLAOS NEAR ASTAKOS IN AKARNANIA.



31



50



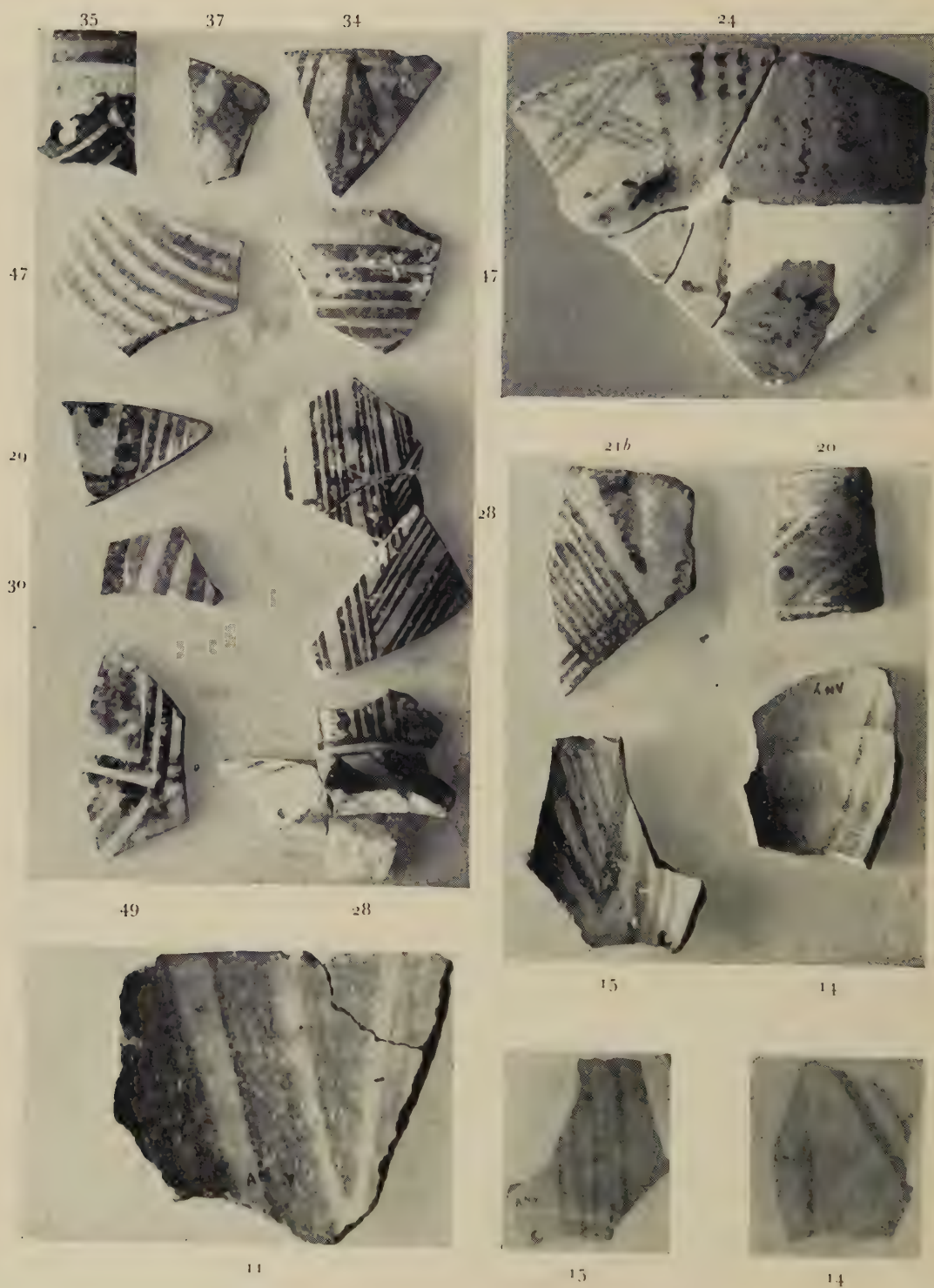
46



61

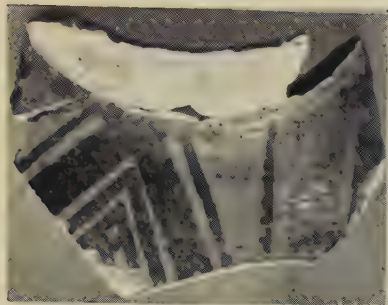
H. NIKOLAOS: PAINTED NEOLITHIC POTTERY.

SCALE, 50, 3 : 5; REST, 2 : 5.

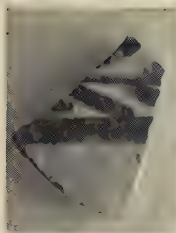


H. NIKOLAOS: PAINTED NEOLITHIC POTTERY.

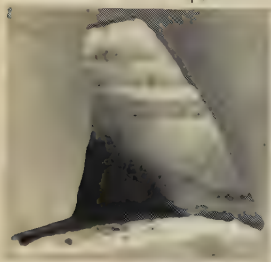
SCALE: 11, 14, 15, 20, 21b, 24, 1:2; REST, 2:3.



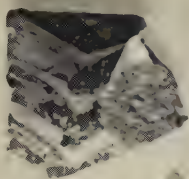
44



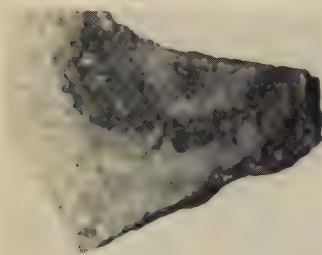
52



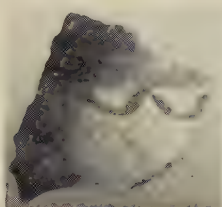
45



51



46



2



43



42



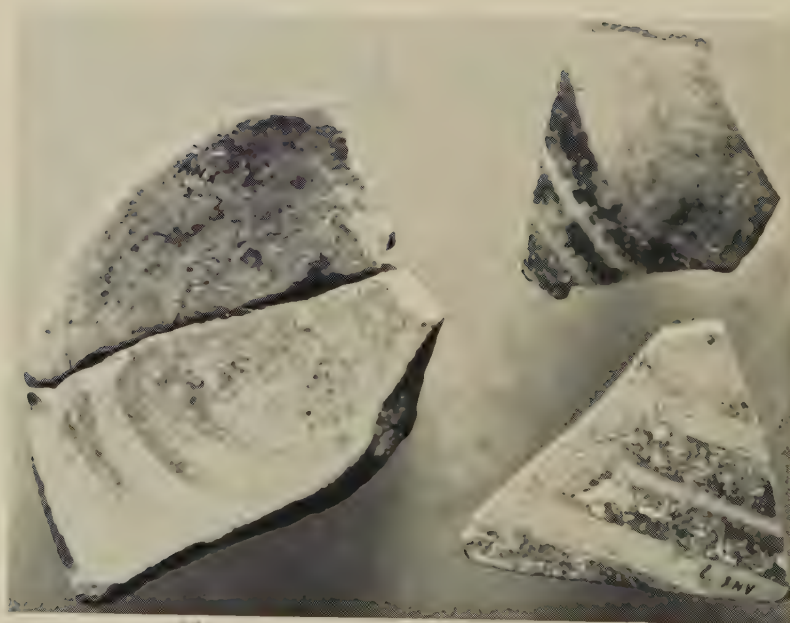
41

H. NIKOLAOS: PAINTED NEOLITHIC POTTERY.

SCALE, 51, 52, 2 : 3 : 41, 42, 1 : 1; REST, 1 : 2.



20



27

26

H. NIKOLAOS PAINTED NEOLITHIC POTTERY.

SOME, *a.* 3 | 5; *b.* 2 | 3.



58



60



1



36



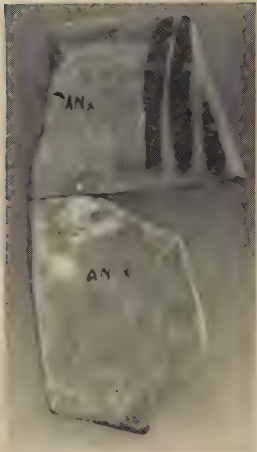
37

H. NIKOLAO NEOLITHIC AND MYCENAEAN (1) POTTERY.

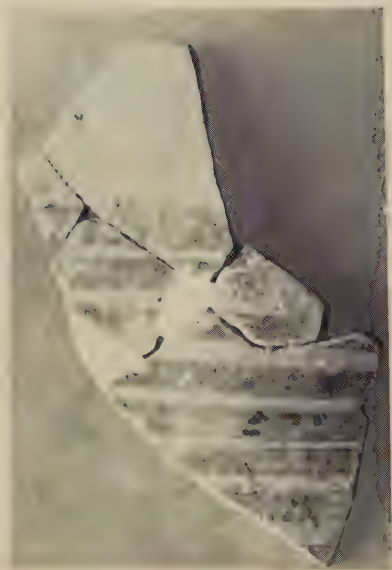
SCALE, 58, 60, 1 : 3; 1, 36, 178, 37, 1 : 2



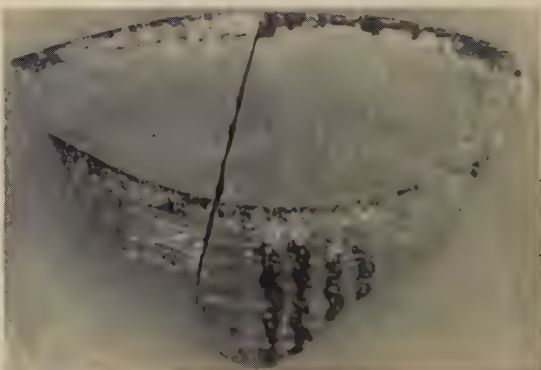
21



21



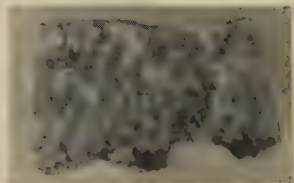
42a



21a



35



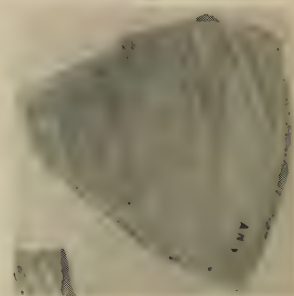
19



18



17



12

H. NIKOLAOS: PAINTED NEOLITHIC POTTERY.
SCALE, ABOUT 1 : 2.



Ἦτονς χιλιοστοῦ ἑνακοσιοστοῦ τεσσαρακοστοῦ
 ἐβλόμον, βασιλεύοντος Γεωργίου ἔκτον, ἔδοξεν
 τῷ Διοικητικῷ συμβουλίῳ τῆς Ἀθήνησιν Βρετ-
 τανικῆς Ἀρχαιολογικῆς Σχολῆς ἐν κυρία ἔδρᾳ·
 ἐπειδὴ ὁ τῶν Ἑλλήνων βασιλεὺς Γεώργιος Δεύ-
 τερος, ἀνὴρ γένει καὶ ἀξιώματι καὶ φιλοπατρία
 διαφέρων, διὰ παντὸς τοῦ βίου ἐαυτὸν ἀπροφα-
 σίστως ἐπιδούς εἰς τὰ τῇ πατρίδι συμφέροντα, ὃς
 νεωστὶ, ἐν πολέμῳ ἀνηλεεῖ καὶ παγκοσμίῳ οὔτε
 κακοπαθίαν οὐδεμίαν οὔτε κίνδυνον ὑποστείλα-
 μένος, ἀνεκλήθη θριαμβεντικῶς εἰς τὴν ἡλευθερω-
 μένην Ἑλλάδα, τετελεύτηκεν αἰφνιδίῳ μόρῳ,
 πένθος λυσπαρηγόρητον καταλιπὼν παντὶ τῷ
 ἔθνει καὶ ἰδίως τοῖς μάλιστα προσήκουσιν, δελό-
 χθαι διὰ τοῦδε τοῦ ψηφίσματος παραμνηθῆσασθαι
 τὸν εὐγενέστατον ἀδελφὸν καὶ διάδοχον αὐτοῦ,
 τὸν τῶν Ἑλλήνων βασιλέα Παῦλον, καὶ σύμ-
 παντα τὸν βασιλικὸν οἶκον, γενναίως φέρειν τὸ
 συμβεβηκός, ἐπιστάμενον ὅτι ἀπαραίτητος μὲν ἡ
 τοῦ βίου τελευτὴ πᾶσιν ἀνθρώποις ὑπολείπεται,
 ὁ δὲ τῶν καλῶς πεπραγμένων ἔπαινος ἀλησμό-
 νητος εἰσαεὶ διαμένει· καὶ εὖξασθαι ὑπὲρ τῆς σω-
 τηρίας καὶ εὐτυχίας καὶ διαμονῆς τοῦ βασιλέως
 Πάυλου.

